Marcus Hook Grade Crossing Study

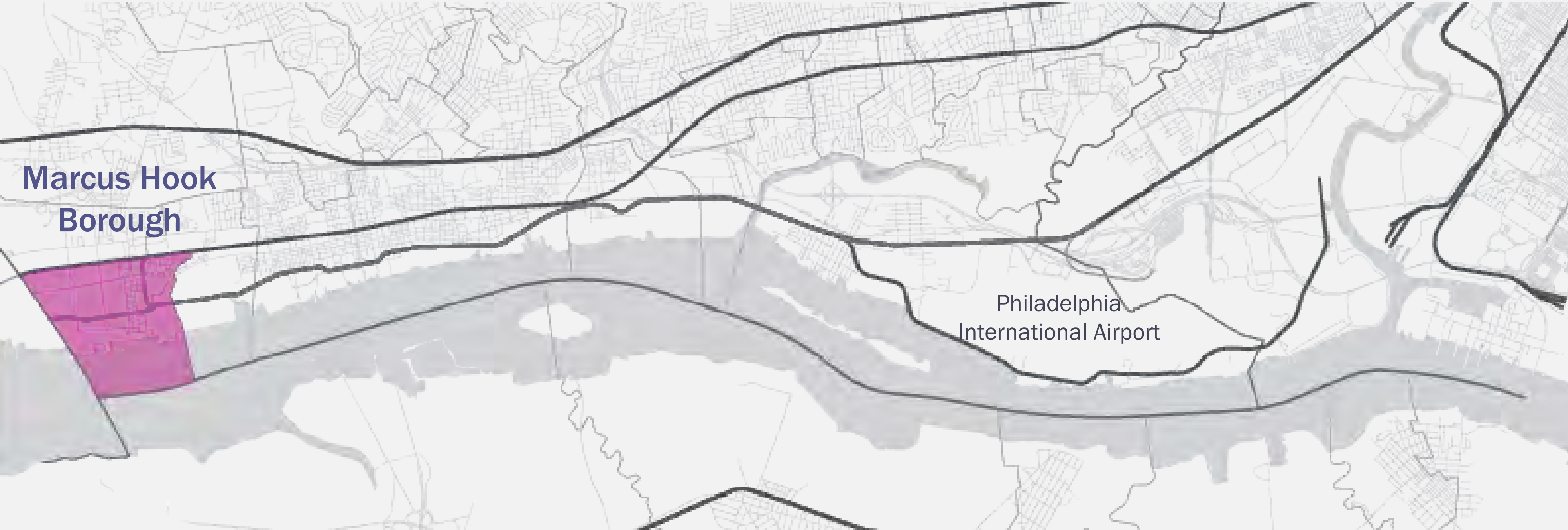
Project Overview

October 10, 2018

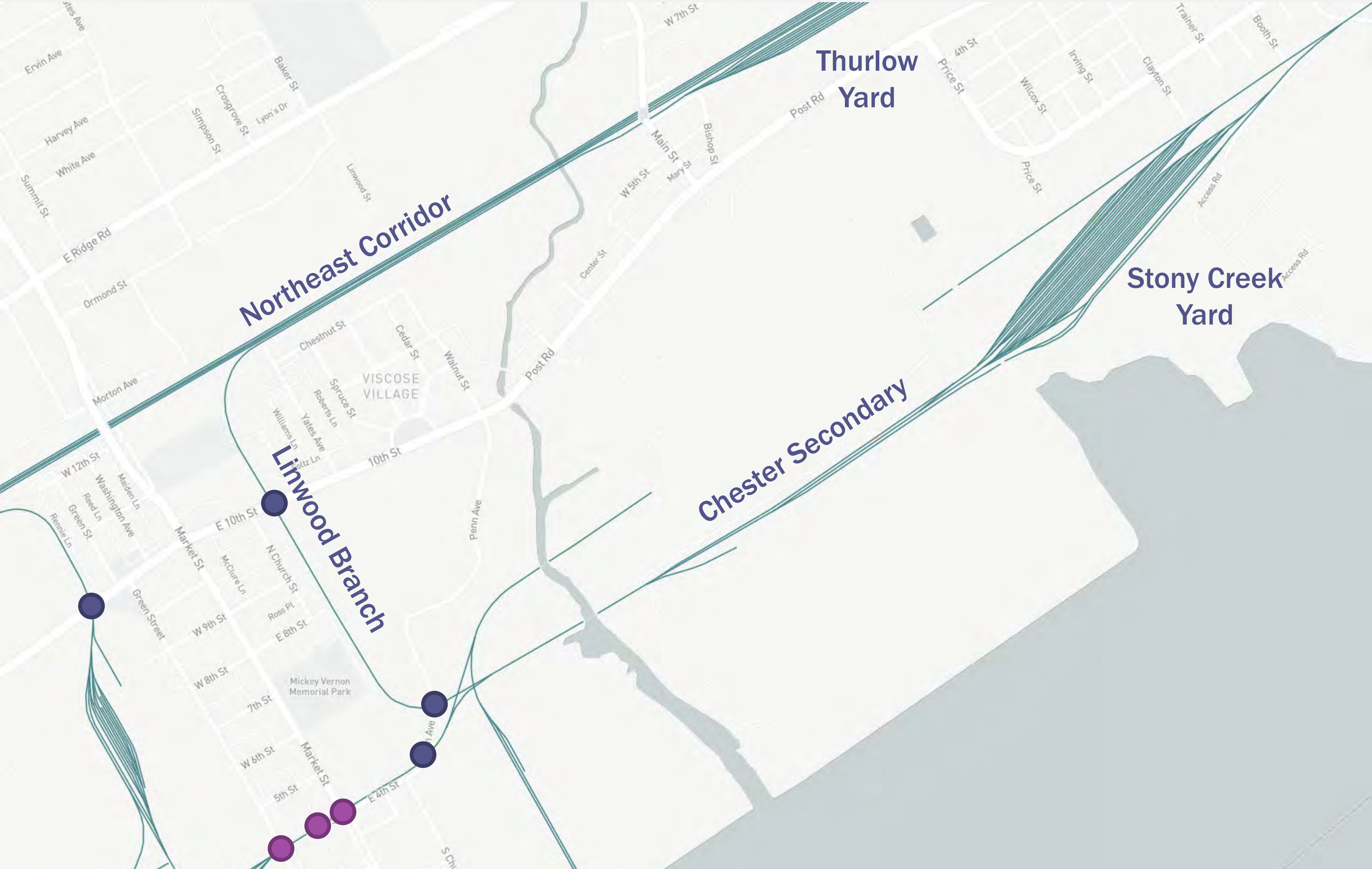
dvrpc

Primary Study Tasks

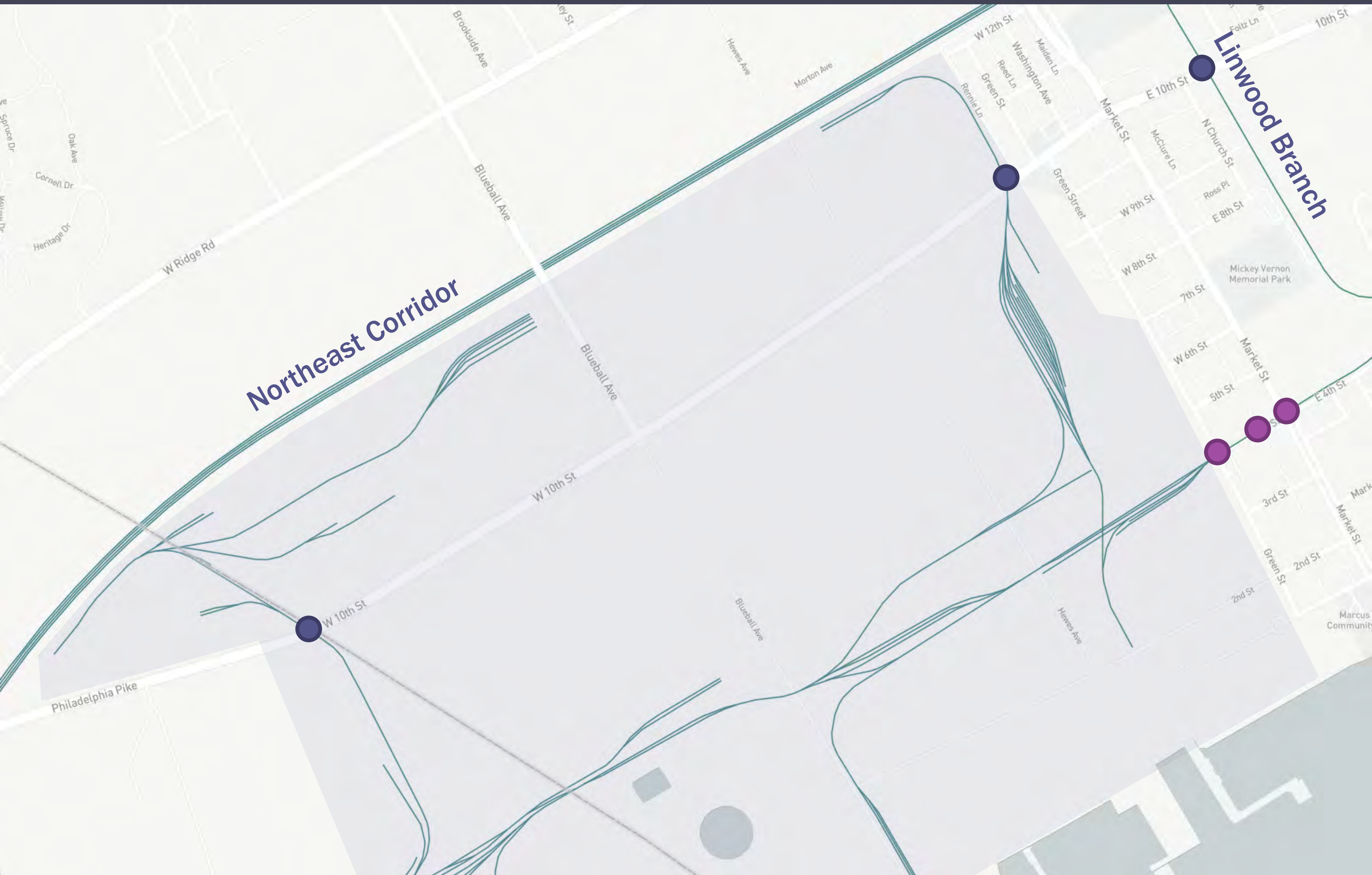
- Formulate steering committee
- Document existing conditions at 3 grade crossings
- Research best practices and options
- Identify and package potential safety improvements



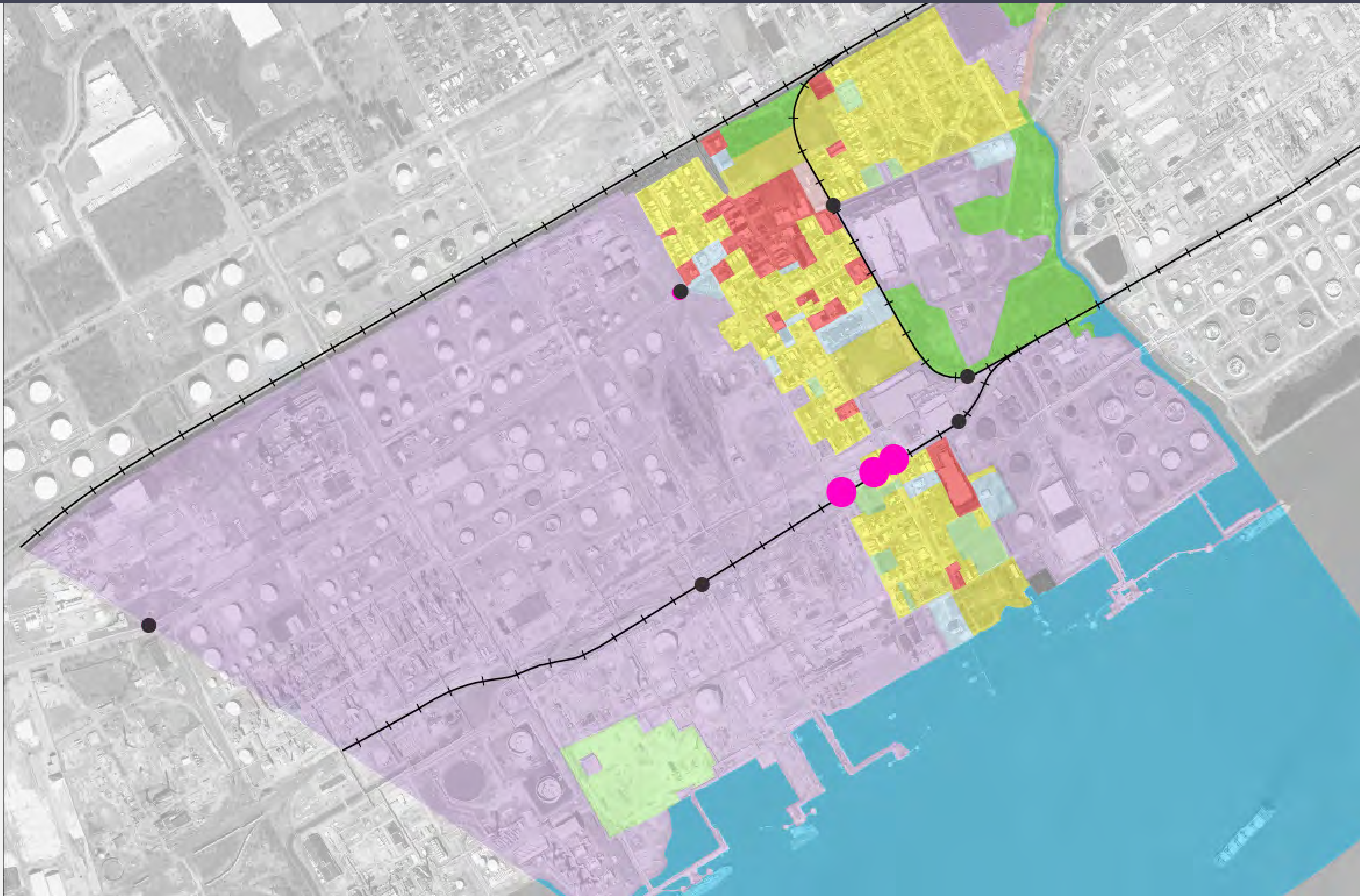
Marcus Hook Railroad Context



Marcus Hook Industrial Complex



Marcus Hook Land Use



Marcus Hook Land Use

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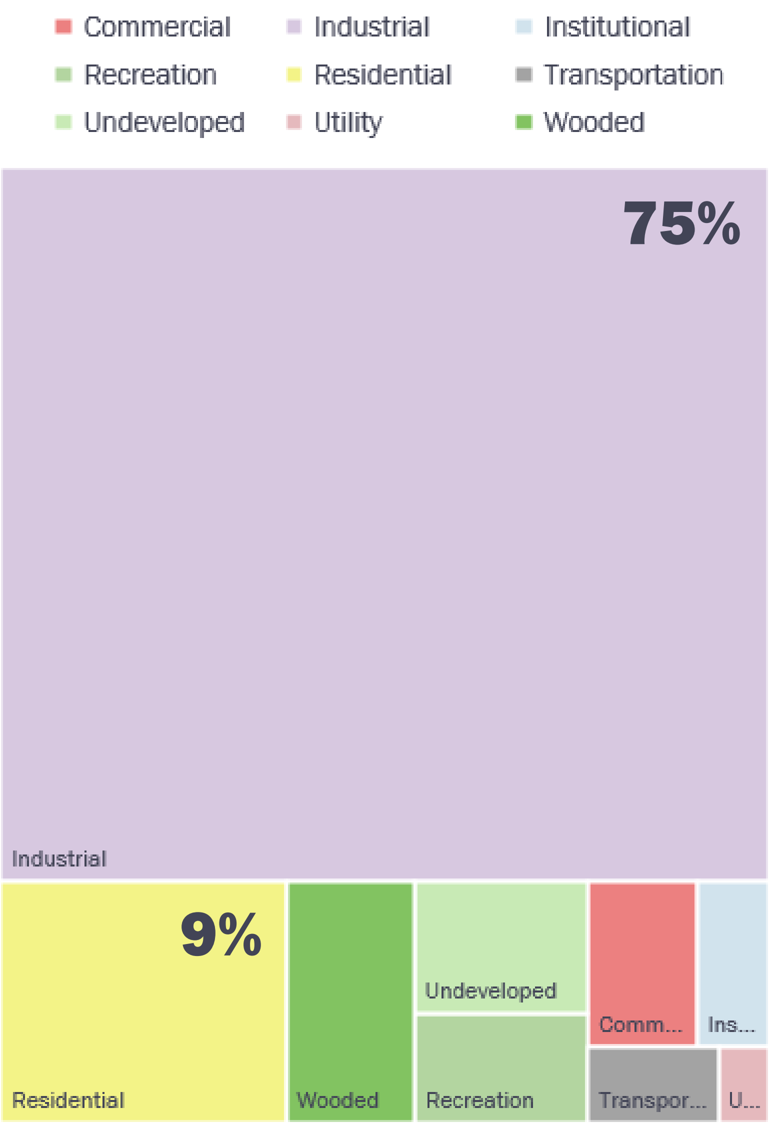

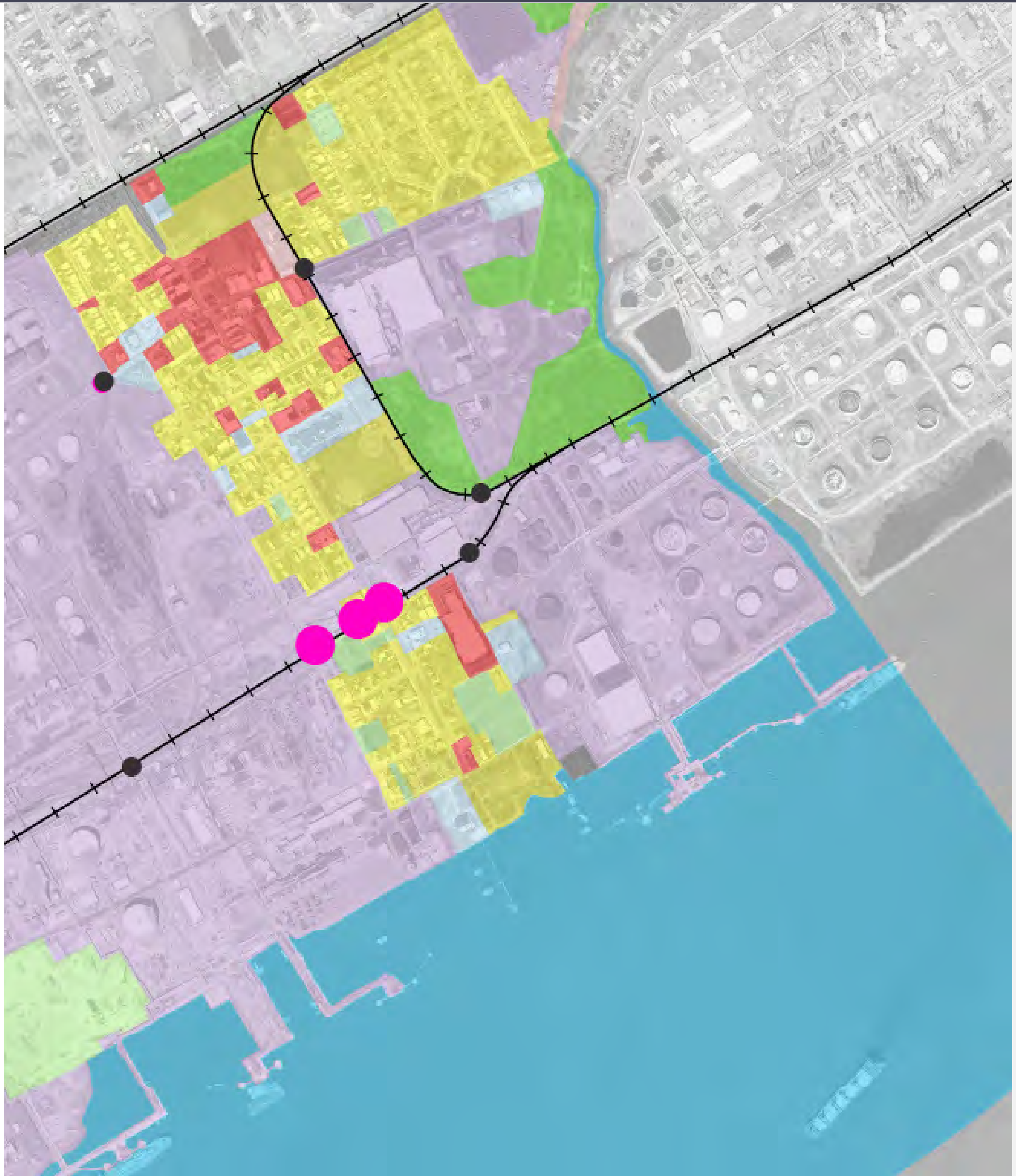

#592835V (Green Street)

Highest Level SSM

Crossbucks

AADT

1,452

Collision Predictions

0.0003

% truck

9.5

#592837J (Maiden Lane)

dvrpc

Highest Level SSM

Crossbuck

Collision Predictions

0.0003

#592836C (Market Street)

Highest Level SSM
Stop signs

AADT
1,152

Collision Predictions
0.0008

% truck
7

Issues and Evaluation

- Noise and operational concerns
- Safety at the crossing (lack of warning)
- Poor visibility and deteriorated signage
- Inconsistent/unpredictable activity
- Potential for extended blockage

FRA Incident History 1975-2018

Incidents	Injuries	Fatalities
3	**2**	**0**

Passive Warning Improvements

- Low cost signage and striping improvements
- Adds visibility and awareness of crossing
- Primarily municipal responsibility
- Includes:
  - Upgraded/new to signage
  - New pavement markings and striping
  - Ensure crossings have Emergency Notification System signs

The ENS sign contains:

1. Each railroad's emergency contact number.
2. The U.S. Department of Transportation (USDOT) National Crossing Inventory Number which identifies the exact location of the crossing to the railroads.

Striping + Signage [short-term]

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- RR crossing advance pavement warnings
- High-visibility crosswalks
- Proper lane markings
- Stop bars

#592835V (Green Street)

Striping + Signage [short-term]

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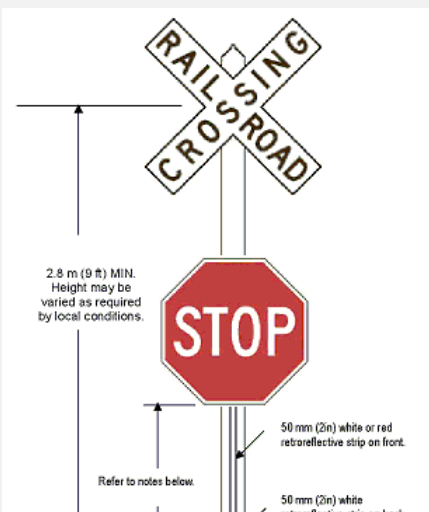
- **New three-way stop**
- Stop signs with crossbucks
- Advance warning signs



#592835V (Green Street)

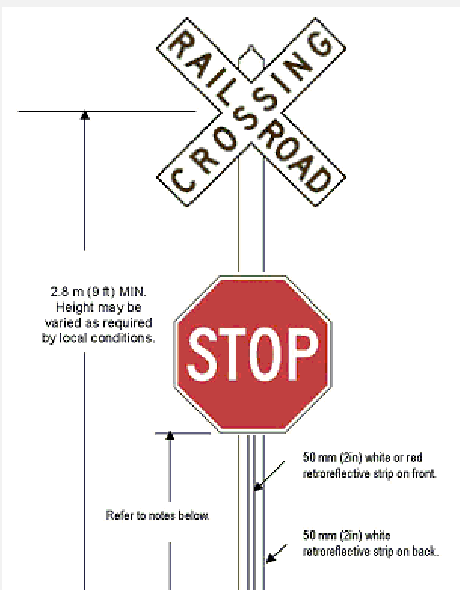
Striping + Signage [short-term]

- RR crossing advance pavement warning
- High-visibility crosswalks
- Proper lane markings
- Stop bars
- Parking Restrictions

#592836C (Market Street)

Striping + Signage [short-term]

- Upgrade stop signs and crossbucks
- Advance warning signs



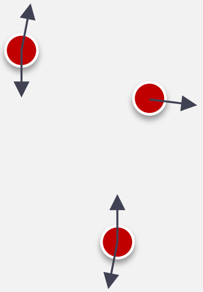
#592836C (Market Street)

Active Warning Improvements

- Improved visibility of crossing through addition of flashing light signals
- Requires activation system on rail
- Installation cost and footprint much greater than signage alone but replaces stated desire for flaggers

Warning Lights [medium-term]

Stop-sign w/ flashing lights



#592835V (Green Street)

Warning Lights [medium-term]

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Stop-sign w/ flashing lights

#592836C (Market Street)

Next Steps

- Field Investigation
  - PennDOT, PUC, DVRPC, Marcus Hook, and Conrail
- Issue final report
- Coordinate FRA Inventory updates

Questions

Michael Ruane
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THE ECONOMIC IMPACT OF DELAWARE RIVER PORTS AND LOGISTICS TRENDS AND IMPLICATIONS FOR EAST COAST PORTS

a presentation to:

Prepared by:
Martin Associates
941 Wheatland Ave., Suite 203
Lancaster, PA 17603

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October 10, 2018

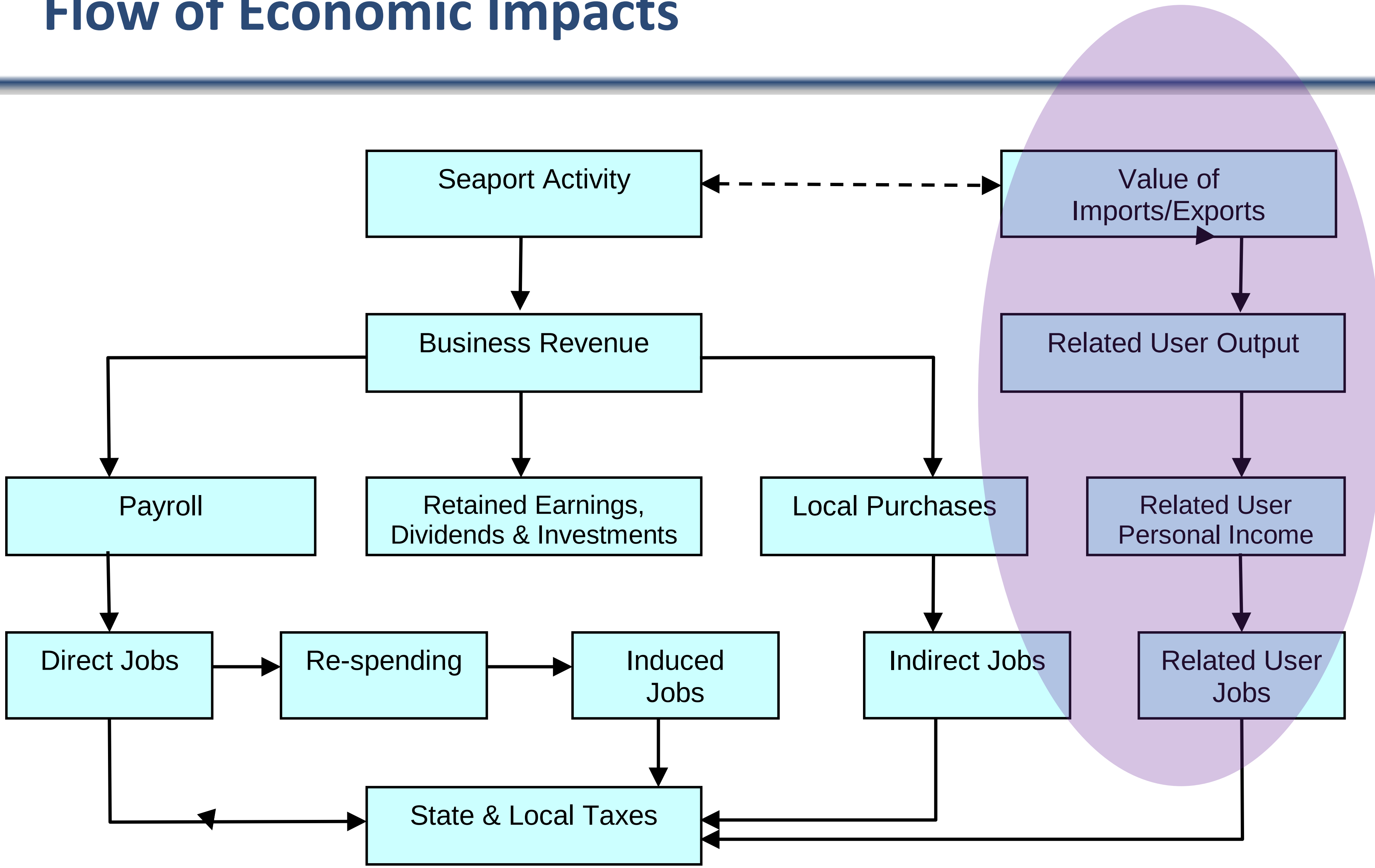
Economic Impact of Delaware River Ports

Study Purpose

- **Retained by the Maritime Exchange of the Delaware River & Bay**

- **Assess cargo volumes handled at Delaware River ports**
- **Measure economic impacts of the Delaware River Ports:**
  - Public terminals
    - PhilaPort
    - SJPC
    - Port of Wilmington
  - Private terminals
- **Develop sensitivity models for each port facility**
  - Can be used for decision making purposes when re-opening the should a shutdown related to a Transportation Security Incident or other hazard occur
- **Compare results to 2010 study**

Flow of Economic Impacts



Methodology

- **Conduct interviews with maritime stakeholders :**
  - Directories and contacts provided by Maritime Exchange
  - Interviews with 477 firms and individuals
  - Firm-level of detail

- **Collect published data from :**
  - Hoovers, a publication of Dun & Bradstreet
  - U.S. Bureau of Census
  - U.S. County Business patterns

- **Assess tax impacts**
  - Tax Foundation
  - U.S. Census “State and Local Gov’t Finances”

Tonnage Comparison 2010-2017
Public and Private Facilities

Commodity	2017 Tons (1,000)	2010 Tons (1,000)	Change in Tons (1,000)	Percent Change
Liquid Bulk	68,555.6	53,769.4	14,786.2	27.5%
Containerized Cargo	9,968.5	4,661.3	5,307.2	113.9%
Dry Bulk	5,609.5	6,837.7	-1,228.2	-18.0%
Steel	3,001.3	956.8	2,044.6	213.7%
Break Bulk Forest Products	1,121.3	531.2	590.2	111.1%
Fruit	663.3	1,524.6	-861.2	-56.5%
Break Bulk/Project Cargo	605.5	254.5	351.0	137.9%
Auto Tonnage	552.5	185.4	367.2	198.1%
Cocoa Beans	289.2	196.3	93.0	47.4%
Non Allocated	NA	NA	NA	
Total	**90,366.8**	**68,917.0**	**21,449.8**	**31.1%**

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Economic Impact Summary of the Public and Private Maritime Cargo Activity along Delaware River

190,436 jobs related to marine cargo activity, of which 55,258 jobs dependent on marine cargo activity

- Direct Jobs: 20,798
- Induced Jobs: 25,240
- Indirect Jobs: 9,221
- 135,178 related user jobs

$77.6 billion of total economic activity

- $3.7 billion of direct business revenue
- $3.5 billion of re-spending of direct income and local consumption purchases
- $70.4 billion of output supported with related port users

$2.6 billion of state and local taxes related to marine cargo

- $655.2 million of direct, induced and indirect state and local taxes
- $2.0 billion of additional state and local taxes generated by related users

Summary by Public and Private Facilities

	PUBLIC	PRIVATE	TOTAL
JOBS			
Direct	10,040	10,758	20,798
Induced	9,588	15,651	25,240
Indirect	1,955	7,267	9,221
Total	21,583	33,676	55,258
PERSONAL INCOME ($1,000)			
Direct	$557,663	$1,013,498	$1,571,160
Re-spending/Local Consumption	$1,229,033	$2,233,648	$3,462,681
Indirect	$72,665	$301,623	$374,288
Total	$1,859,361	$3,548,769	$5,408,129
BUSINESS REVENUE ($1,000)	$1,536,500	$2,141,791	$3,678,292
LOCAL PURCHASES ($1,000)	$161,620	$647,666	$809,286
STATE/LOCAL TAXES ($1,000)	$218,366	$436,797	$655,164
RELATED USER IMPACTS			
Jobs	86,316	48,863	135,178
Personal Income ($1,000)	$3,857,049	$2,200,209	$6,057,258
Business Revenue/Economic Output ($1,000)	$19,711,078	$50,712,216	$70,423,294
State/Local Taxes ($1,000)	$770,302	$1,208,909	$1,979,212
GRAND TOTAL:			
Jobs	***107,898***	***82,538***	***190,436***
Personal Income ($1,000)	***$5,716,410***	***$5,748,977***	***$11,465,387***
Business Revenue/Economic Output ($1,000)	***$21,247,579***	***$52,854,007***	***$74,101,586***
State/Local Taxes ($1,000)	***$988,669***	***$1,645,707***	***$2,634,375***

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Distribution of Direct Jobs by Sector

SECTOR	PUBLIC	SHARE	PRIVATE	SHARE	TOTAL	SHARE
SURFACE TRANSPORTATION						
Rail	181	1.8%	16	0.1%	197	0.9%
Truck	2,468	24.6%	3,825	35.6%	6,293	30.3%
MARITIME SERVICES						
Terminal Operators	1,867	18.6%	5,581	51.9%	7,449	35.8%
Longshoremen/Dockworkers	1,865	18.6%	198	1.8%	2,062	9.9%
Towing	81	0.8%	105	1.0%	186	0.9%
Pilots	133	1.3%	37	0.3%	170	0.8%
Agents	35	0.3%	63	0.6%	98	0.5%
Maritime Services	1,390	13.8%	313	2.9%	1,704	8.2%
Forwarders	260	2.6%	107	1.0%	366	1.8%
Warehousing	617	6.1%	203	1.9%	820	3.9%
Government	614	6.1%	220	2.0%	834	4.0%
Linehaul Barge	36	0.4%	59	0.5%	95	0.5%
DEPENDENT SHIPPERS/CONSIGNEES	40	0.4%	30	0.3%	71	0.3%
PUBLIC PORT AUTHORITY	454	4.5%	NA	NA	454	2.2%
TOTAL	**10,040**	**100.0%**	**10,758**	**100.0%**	**20,798**	**100.0%**

Distribution of the Direct Jobs by Commodity

Commodity	Public	Share	Private	Share	Total
Petroleum	66	0.7%	3,767	35.0%	3,833
Containerized Cargo	2,563	25.5%	1,213	11.3%	3,775
Other Liquid Bulk	276	2.7%	2,280	21.2%	2,556
Fruit	585	5.8%	499	4.6%	1,084
Steel	664	6.6%	388	3.6%	1,052
Break Bulk Forest Products	1,029	10.2%	11	0.1%	1,040
Autos	835	8.3%		0.0%	835
Other Dry Bulk	451	4.5%	330	3.1%	780
Scrap	549	5.5%	180	1.7%	729
Break Bulk/Project Cargo	84	0.8%	332	3.1%	416
Cocoa Beans	396	3.9%		0.0%	396
Salt	6	0.1%	114	1.1%	120
Cement	111	1.1%		0.0%	111
Not Allocated	2,425	24.2%	1,645	15.3%	4,070
Total	**10,040**	**100.0%**	**10,758**	**100.0%**	**20,798**

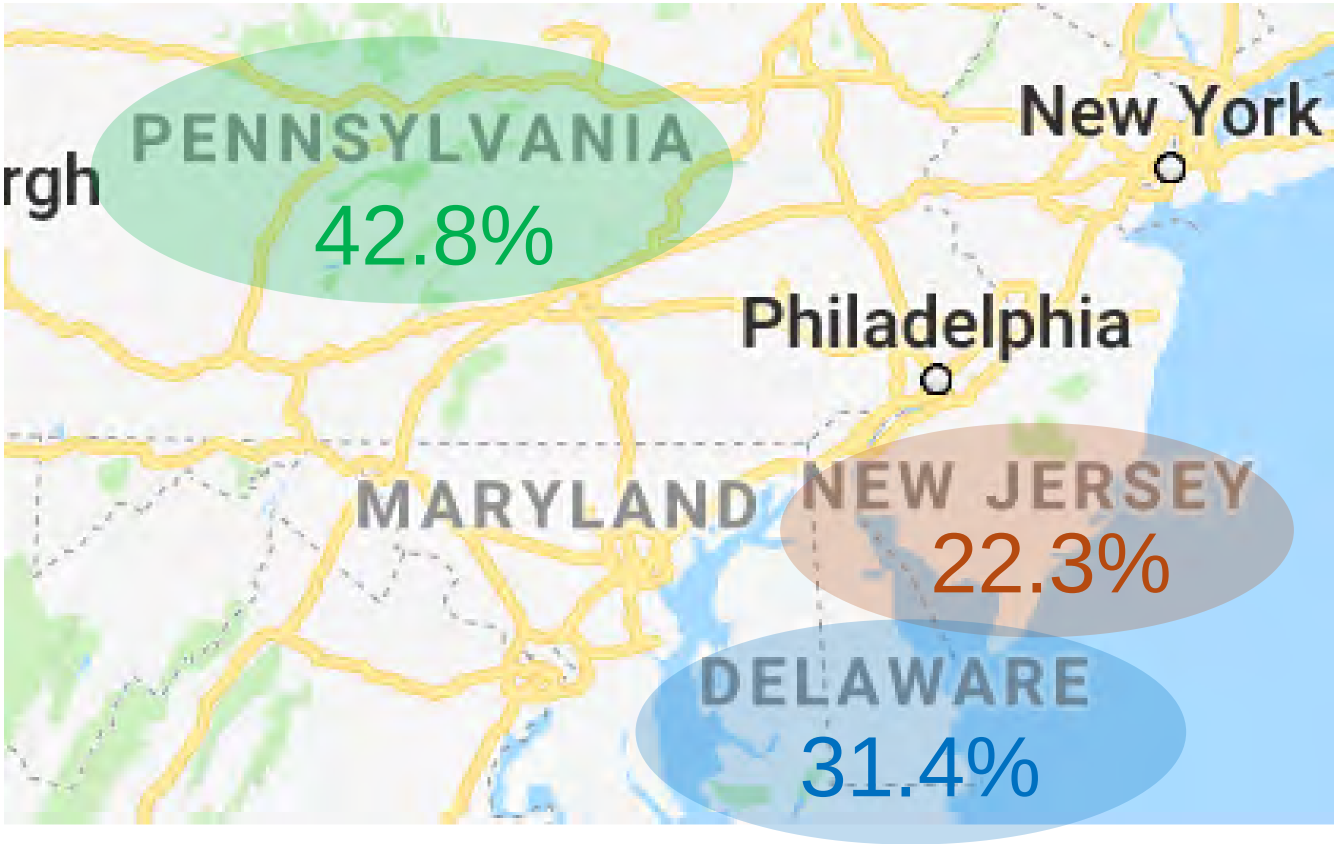
MARTIN ASSOCIATES

Direct Jobs per 1,000 tons by Commodity

Commodity	Total (1000 Tons)	Direct Jobs	Jobs/1000 Tons
Petroleum	61,981.2	3,833	0.06
Containerized Cargo	9,968.5	3,775	0.38
Other Liquid Bulk	6,574.4	2,556	0.39
Fruit	663.3	1,084	1.63
Steel	3,001.3	1,052	0.35
Break Bulk Forest Products	1,121.3	1,040	0.93
Automobiles	552.5	835	1.51
Other Dry Bulk	3,302.9	780	0.24
Scrap	1,320.9	729	0.55
Break Bulk/Project Cargo	605.5	416	0.69
Cocoa Beans	289.2	396	1.37
Salt	429.9	120	0.28
Cement	555.9	111	0.20
Not Allocated Jobs	NA	4,070	
Total	**90,366.8**	**20,798**	

Geographic Distribution of Direct Jobs

	TOTAL DIRECT JOBS SHARE	TOTAL DIRECT JOBS
PENNSYLVANIA		
Cities:		
Philadelphia	9.12%	1,896
Counties:		
Bucks	4.64%	966
Chester	4.39%	914
Delaware	3.96%	823
Montgomery	0.53%	111
Philadelphia	11.44%	2,380
PA Subtotal	**34.09%**	**7,089**
NEW JERSEY		
Cities:		
Gloucester City	0.39%	80
Camden	1.12%	232
Counties:		
Atlantic	0.06%	12
Burlington	0.66%	138
Camden	8.51%	1,770
Cumberland	0.98%	204
Gloucester	4.43%	921
Mercer	0.10%	20
Salem	0.13%	27
NJ Subtotal	**16.37%**	**3,404**
DELAWARE		
Cities:		
Wilmington	25.21%	5,243
Counties:		
Kent	1.45%	302
Newcastle	4.66%	969
Sussex	0.07%	15
DE Subtotal	**31.39%**	**6,529**
Other PA	8.72%	1,813
Other NJ	5.91%	1,230
Other US	3.52%	732
Other Subtotal	**18.15%**	**3,775**
TOTAL	**100.00%**	**20,798**



Impact Comparison 2010-2017

Category	2017	2010	Change
JOBS			
Direct	20,798	17,621	3,176
Induced	25,240	18,454	6,785
Indirect	9,221	10,480	-1,259
Total	**55,258**	**46,556**	**8,702**
PERSONAL INCOME (1,000)			
Direct	$1,571,160	$1,068,004	$503,156
Re-spending/Local Consumption	$3,462,681	$2,508,528	$954,152
Indirect	$374,288	$481,266	-$106,977
Total	**$5,408,129**	**$4,057,798**	**$1,350,331**
BUSINESS REVENUE (1,000)	**$3,678,292**	**$3,154,776**	**$523,515**
LOCAL PURCHASES (1,000)	**$809,286**	**$943,780**	**-$134,494**
RELATED USER IMPACTS			
Jobs	**135,178**	**88,389**	**46,790**
Personal Income (1,000)	**$6,057,258**	**$3,701,033**	**$2,356,225**
Economic Output (1,000)	**$70,423,294**	**$49,898,567**	**$20,524,727**

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Direct Job Comparison 2010-2017

Commodity	2017 Tons (1,000)	2010 Tons (1,000)	Change in Tons (1,000)	2017 Direct Jobs	2010 Direct Jobs	Change In Direct Jobs
Liquid Bulk	68,555.6	53,769.4	14,786.2	6,390	4,445	1,944
Containerized Cargo	9,968.5	4,661.3	5,307.2	3,775	2,314	1,462
Break Bulk Forest Products	1,121.3	531.2	590.2	1,040	488	552
Steel	3,001.3	956.8	2,044.6	1,052	575	477
Auto Tonnage	552.5	185.4	367.2	835	498	337
Cocoa Beans	289.2	196.3	93.0	396	240	157
Dry Bulk	5,609.5	6,837.7	-1,228.2	1,740	1,785	-45
Break Bulk/Project Cargo	605.5	254.5	351.0	416	962	-546
Fruit	663.3	1,524.6	-861.2	1,084	2,416	-1,332
Non Allocated	NA	NA	NA	4,070	3,898	172
Total	**90,366.8**	**68,917.0**	**21,449.8**	**20,798**	**17,621**	**3,176**

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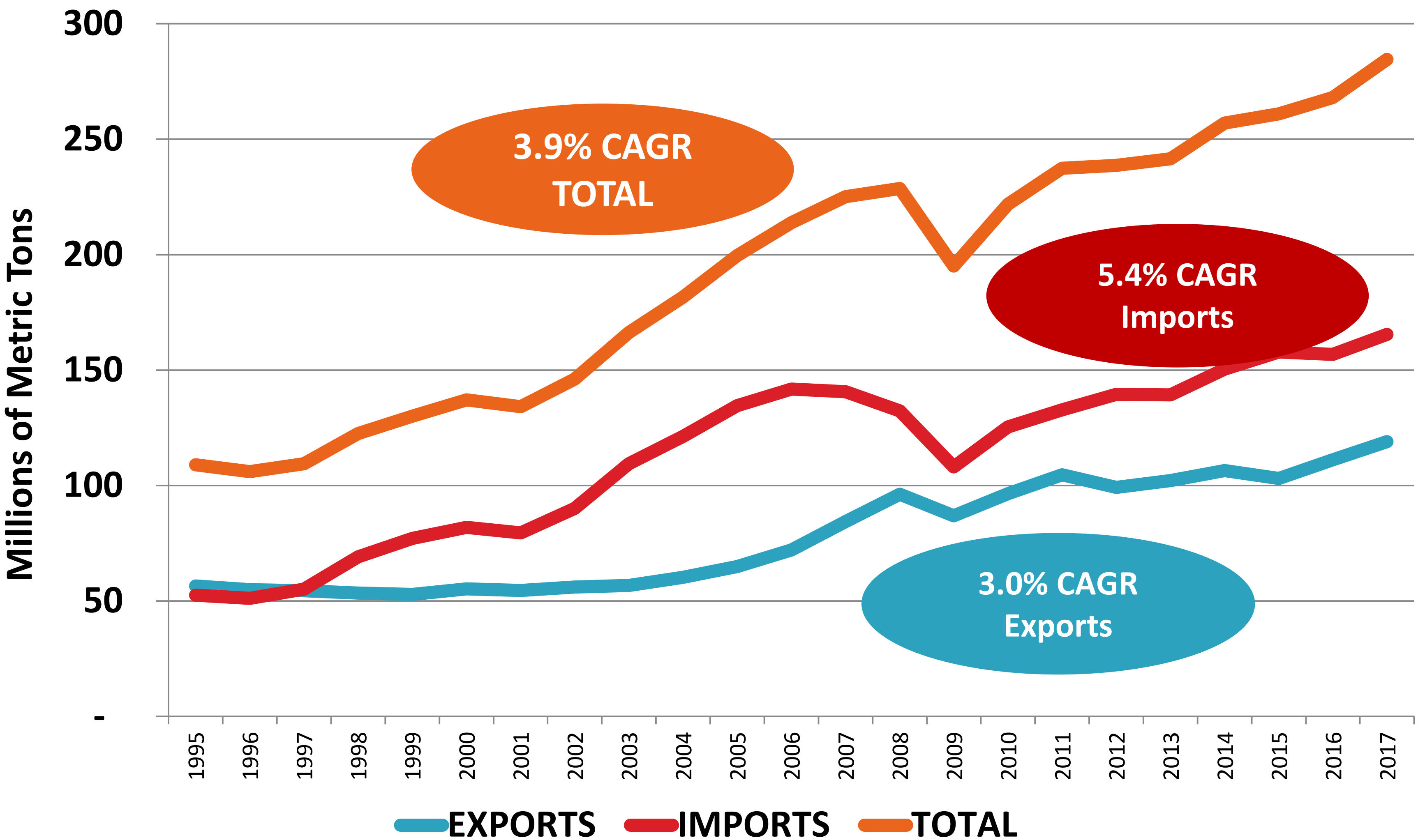
Trends in Container Logistics and Implications for East Coast Ports and Freight Movement

Historical Import and Export Containerized Tonnage (15-year annual growth)



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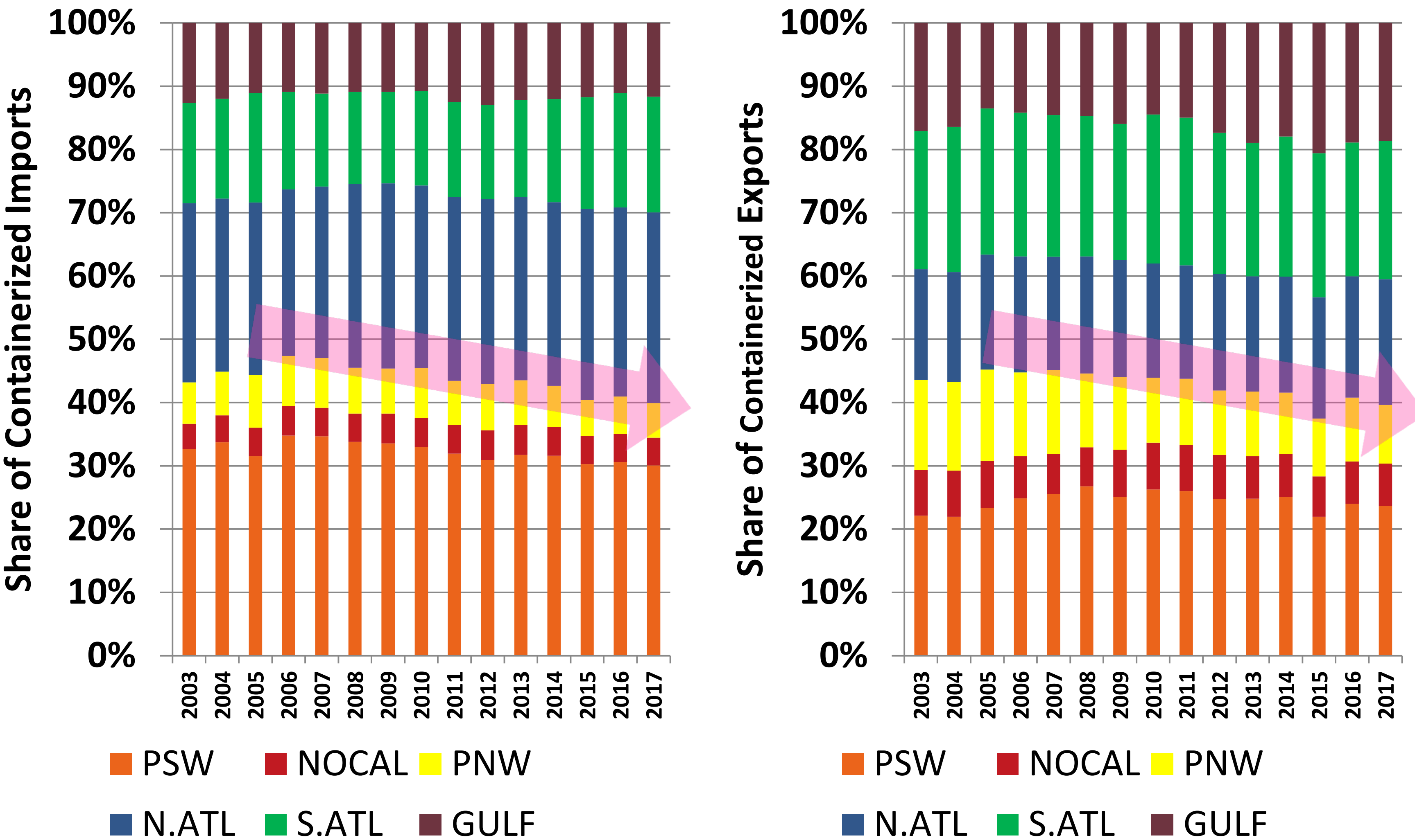
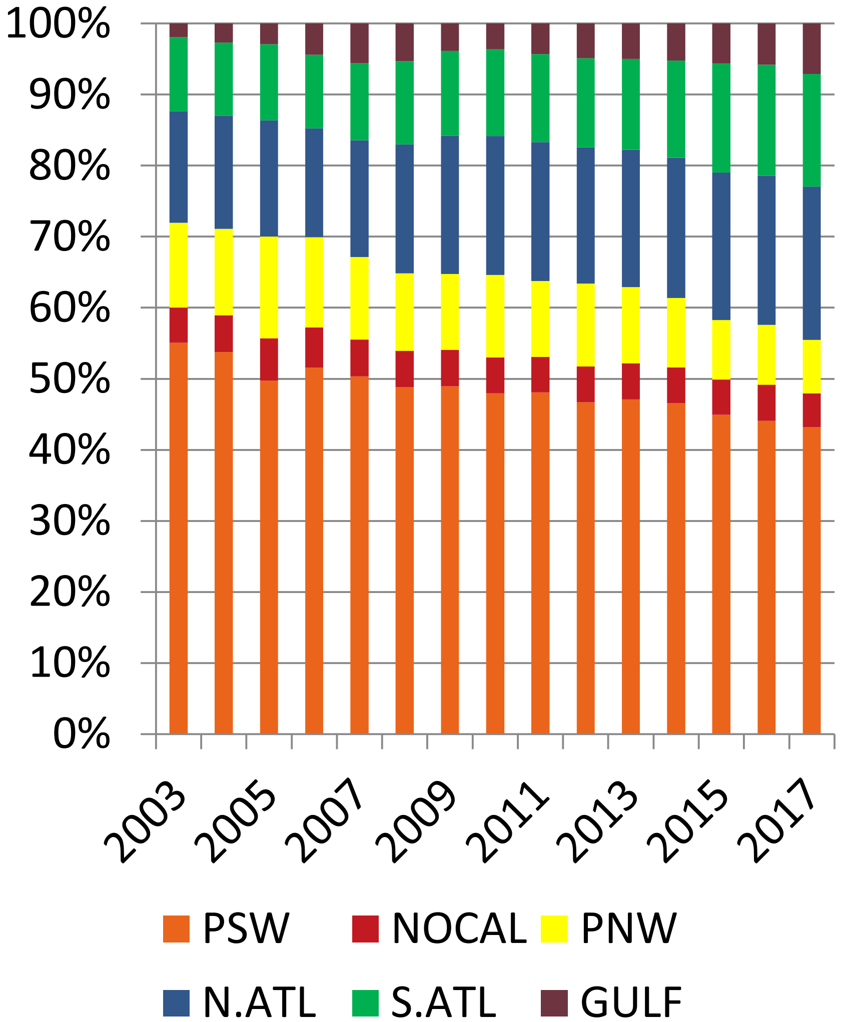
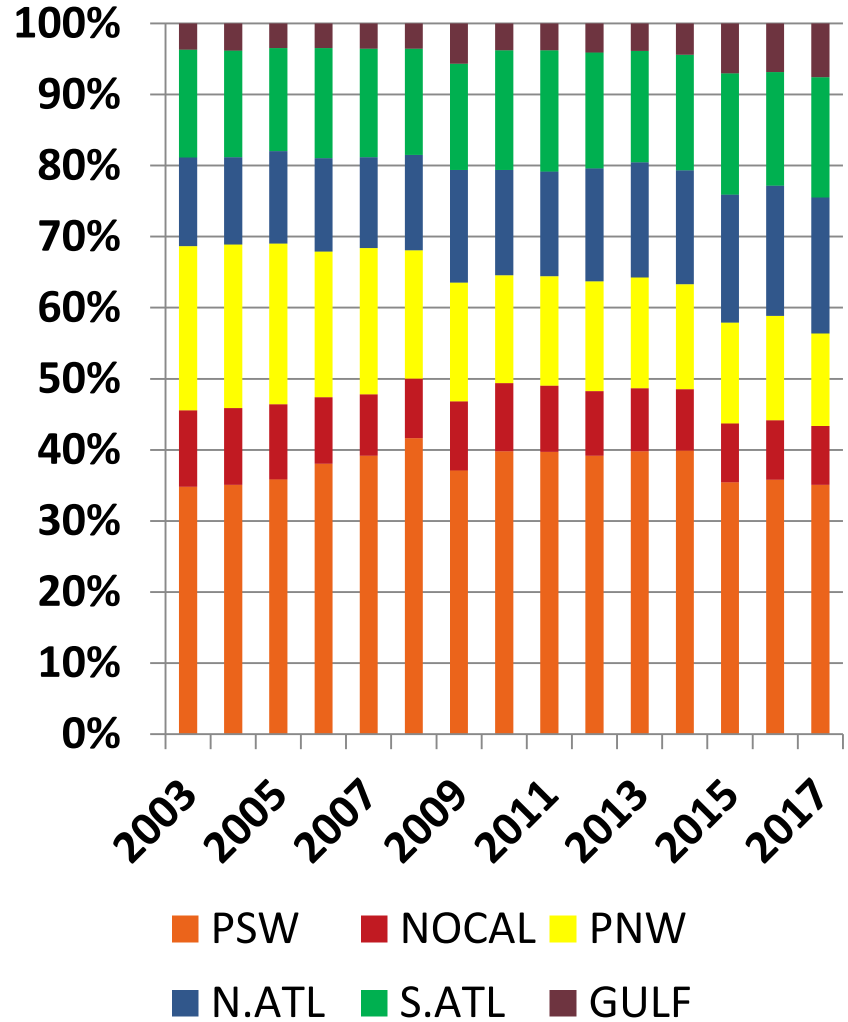
West Coast Ports Handle About 40% of Containerized Imports and Exports; However Share Has Been Declining



Source: U.S. Census, USA Trade Online

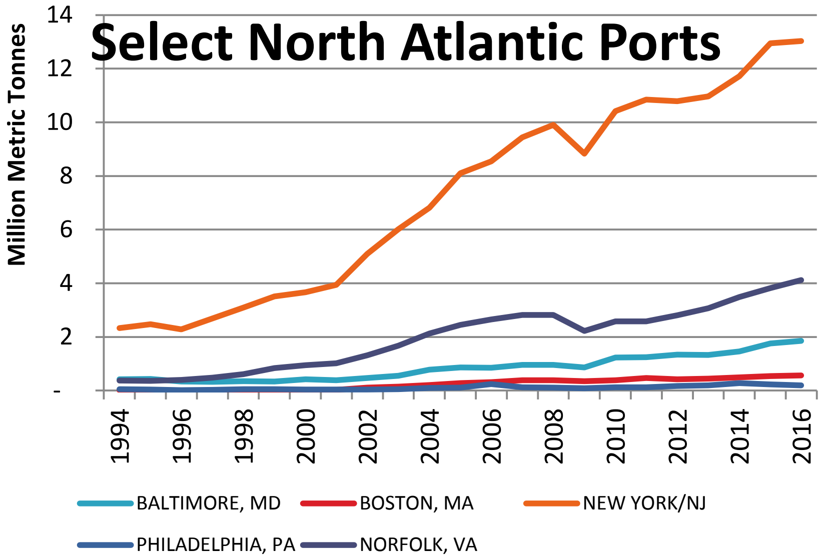
Asian Containers by U.S. Port Region – Imports and Exports

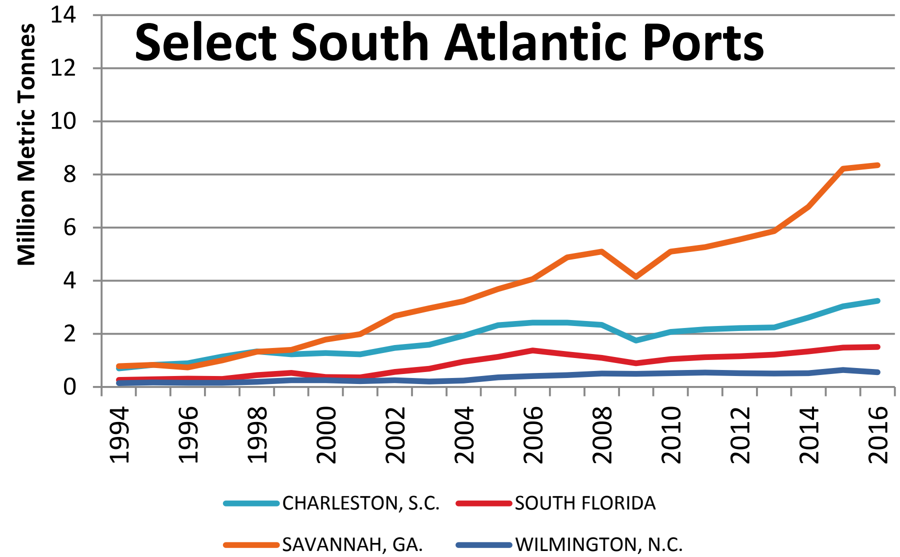


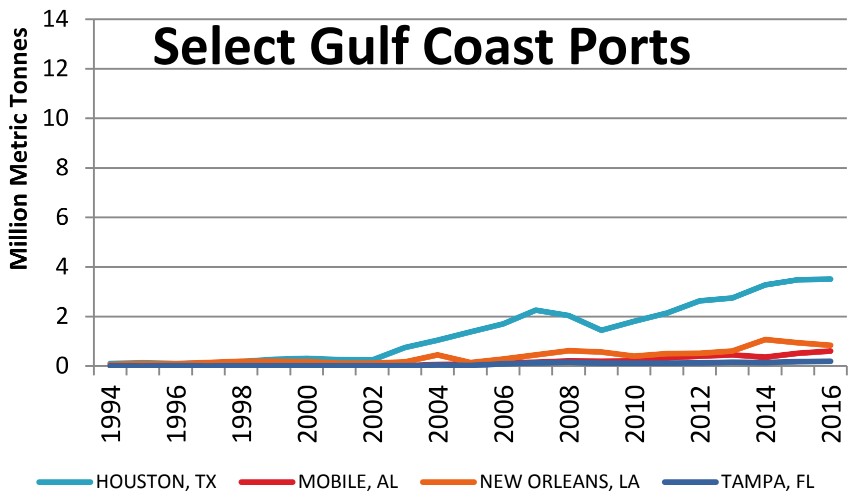


Source: U.S. Census, USA Trade Online

Growth in All-Water Services Accelerated After 2002 - Asian Imports Via Atlantic and Gulf Coast Ports

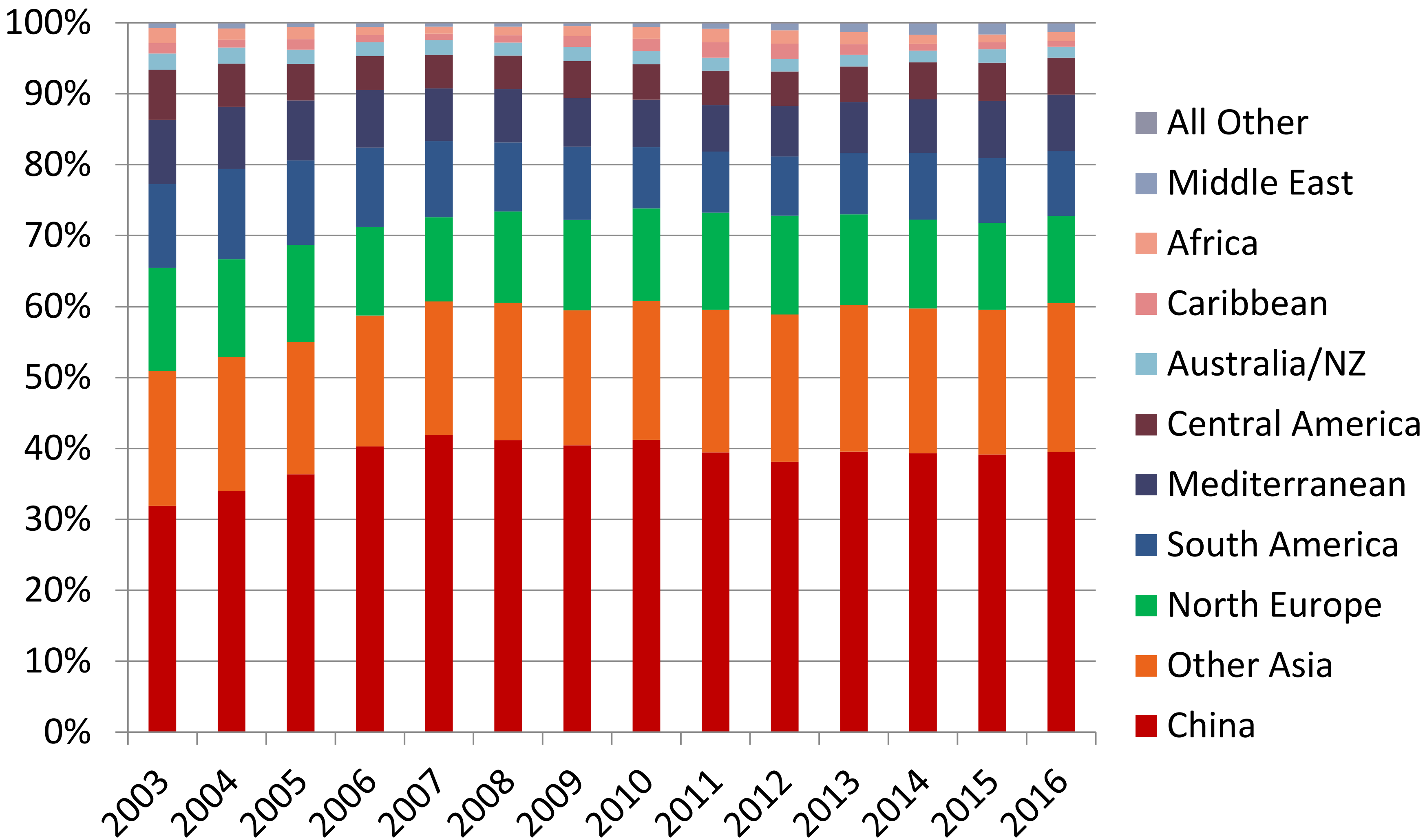






Source: U.S. Census, USA Trade Online

Asia, primarily China, has sourced about 60% of imported containerized tons; However supply sources are shifting…



Source: U.S. Census, USA Trade Online

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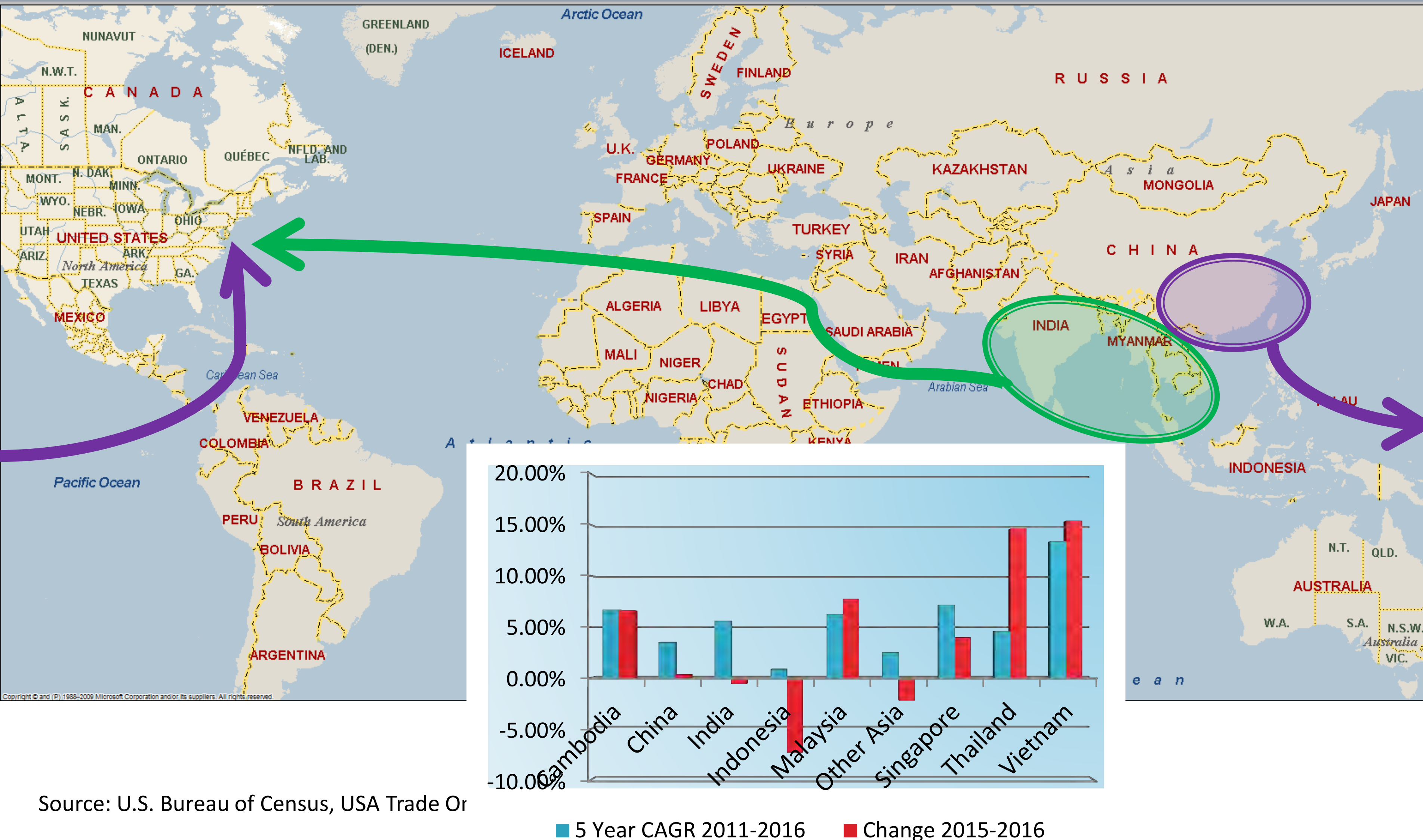
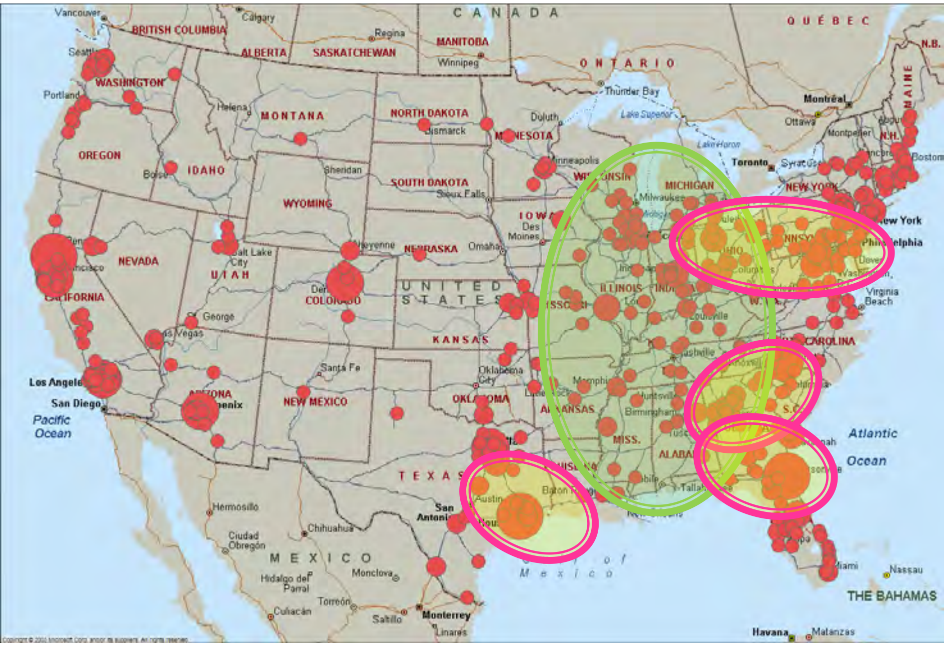
Growth in Southwest Asian supply sources favor a Suez all-water routing to the East Coast



Source: U.S. Bureau of Census, USA Trade Or

The Midwest is the Battleground for All-Water vs. TransPacific

- **Top 25 Retailers**



- **26-50 Retailers**

Lehigh Valley I-81 and I-78 Corridors growing in the region

Source: Chain Store Guide, National Retail Federation

Implications of Growth in Panama and Suez Container Traffic

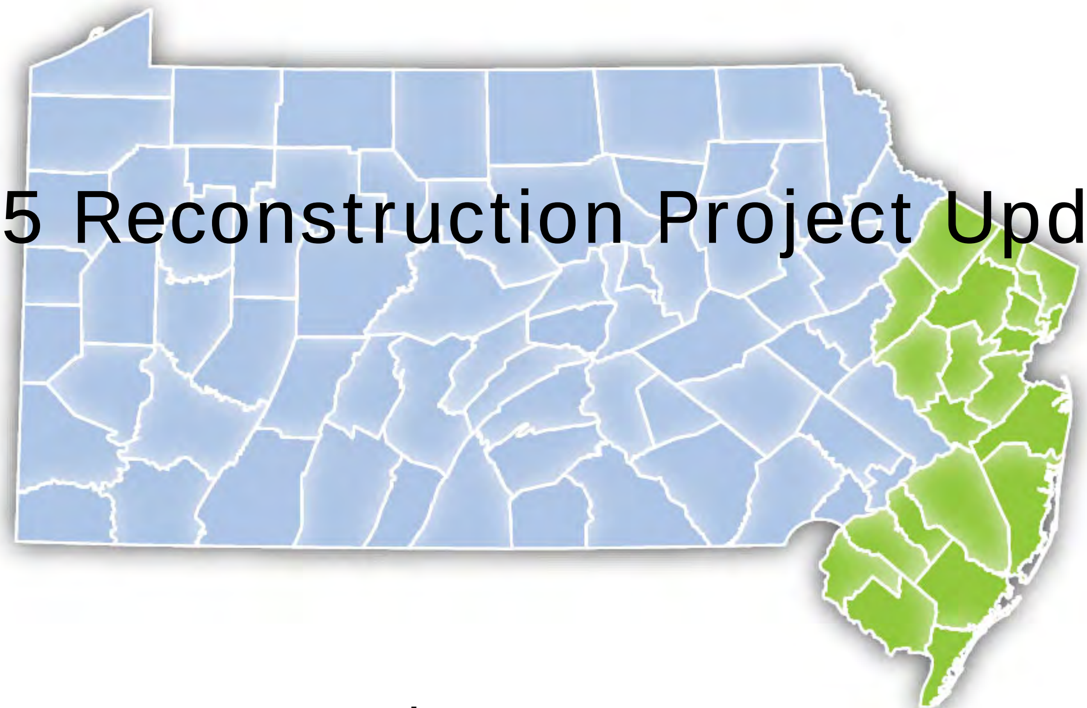
- **East and Gulf Coasts will have to compete to handle the larger sized vessels:**
  - Channel Depth and Berth Capacity
  - Crane outreach capability
  - Gate and Port Access
- **Compete for local market**
- **Access to discretionary cargo markets for both truck and rail**
- **Rail projects underway to increase access to Midwest**
- **Truck retrieval times and truck queues**
  - Impact on local drayage by owner-operators - need to maximize turn times
  - Appointment system - improve efficiency under ELD requirements
  - Extended gate hours
  - Saturday vs. Sunday - Truckers hours of service
  - Off-dock and peel-off yards
  - Integrated IT systems

Final thoughts…Uncertainties and factors that may affect freight movement

- Industry Alliances and Mergers
- Trade policies and tariffs
- Infrastructure project funding?
- Growth in 24 hour e-commerce fulfillment
  - Near market warehousing/DC locations
  - Labor and Truck availability
- Increased development of DC's near agricultural production centers to promote farm to market concept
- Automation/Robotics
- Labor contract negotiations and future of automated terminals
  - Capital intensive, but labor costs still remain due to pension liability
- Automated vehicles and impact on truck queueing and gate ops
- 3-D Printing

Thank You

Delaware Valley Goods Movement Task Force Meeting



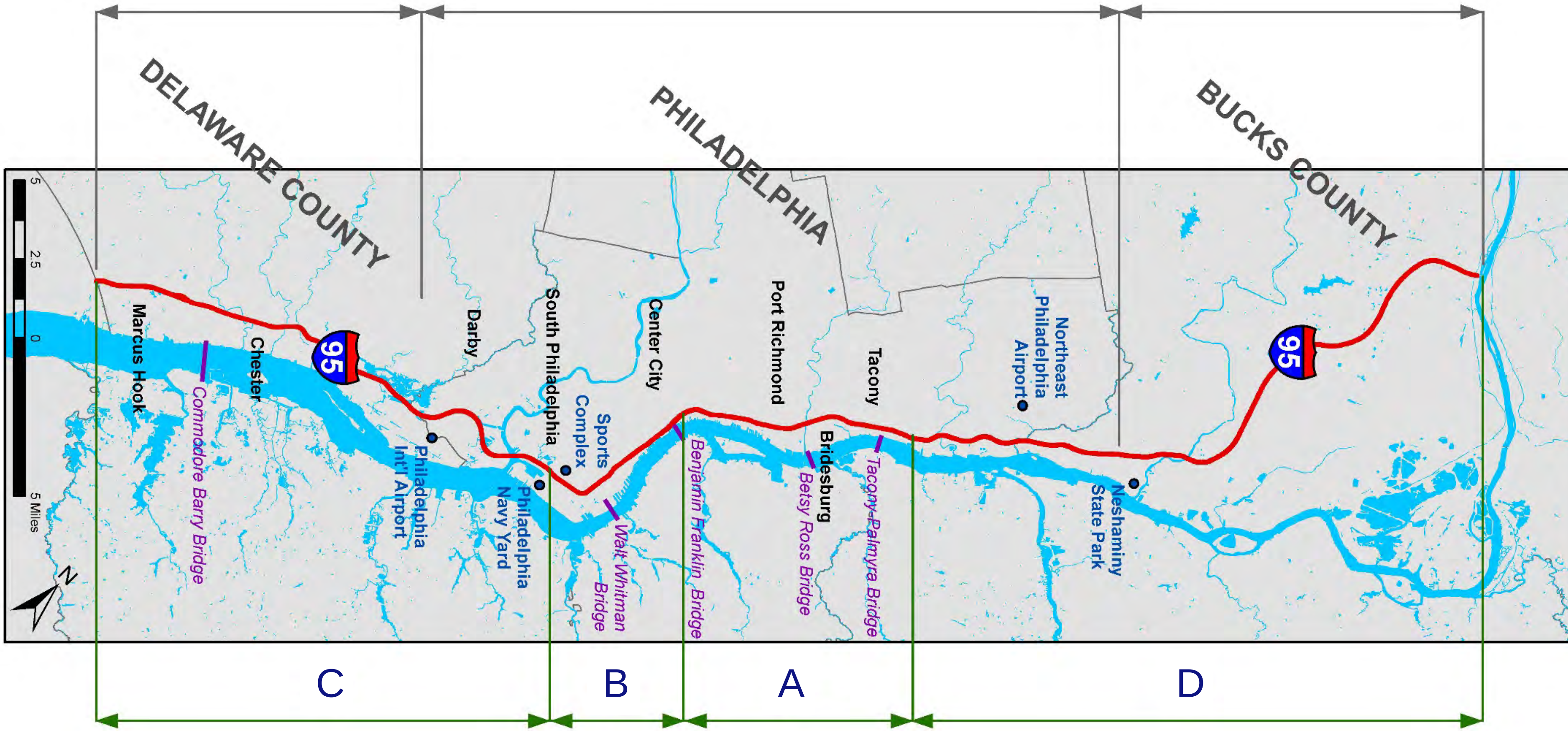
I-95 Reconstruction Project Update

October 10, 2018

pennsylvania
DEPARTMENT OF TRANSPORTATION
www.dot.state.pa.us

www.95revive.com

Interstate 95 Corridor



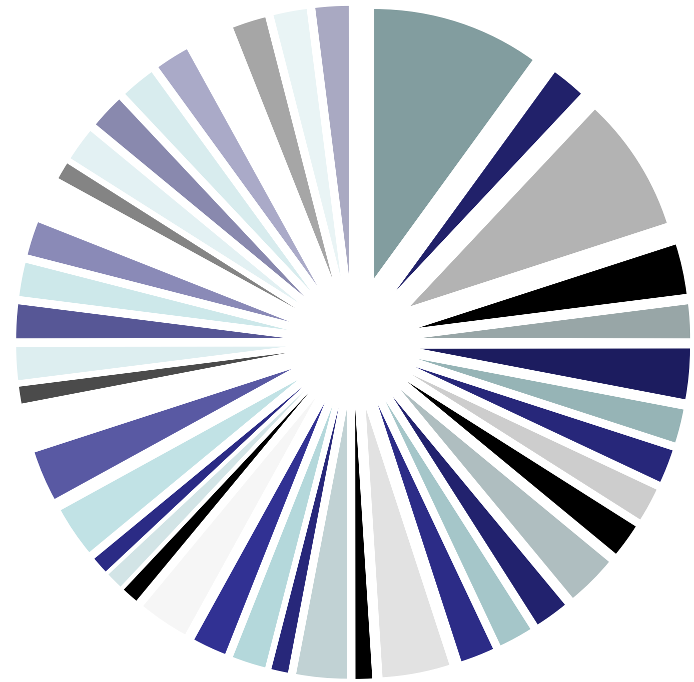
pennsylvania
DEPARTMENT OF TRANSPORTATION
www.dot.state.pa.us

Interstate 95 Corridor Reconstruction

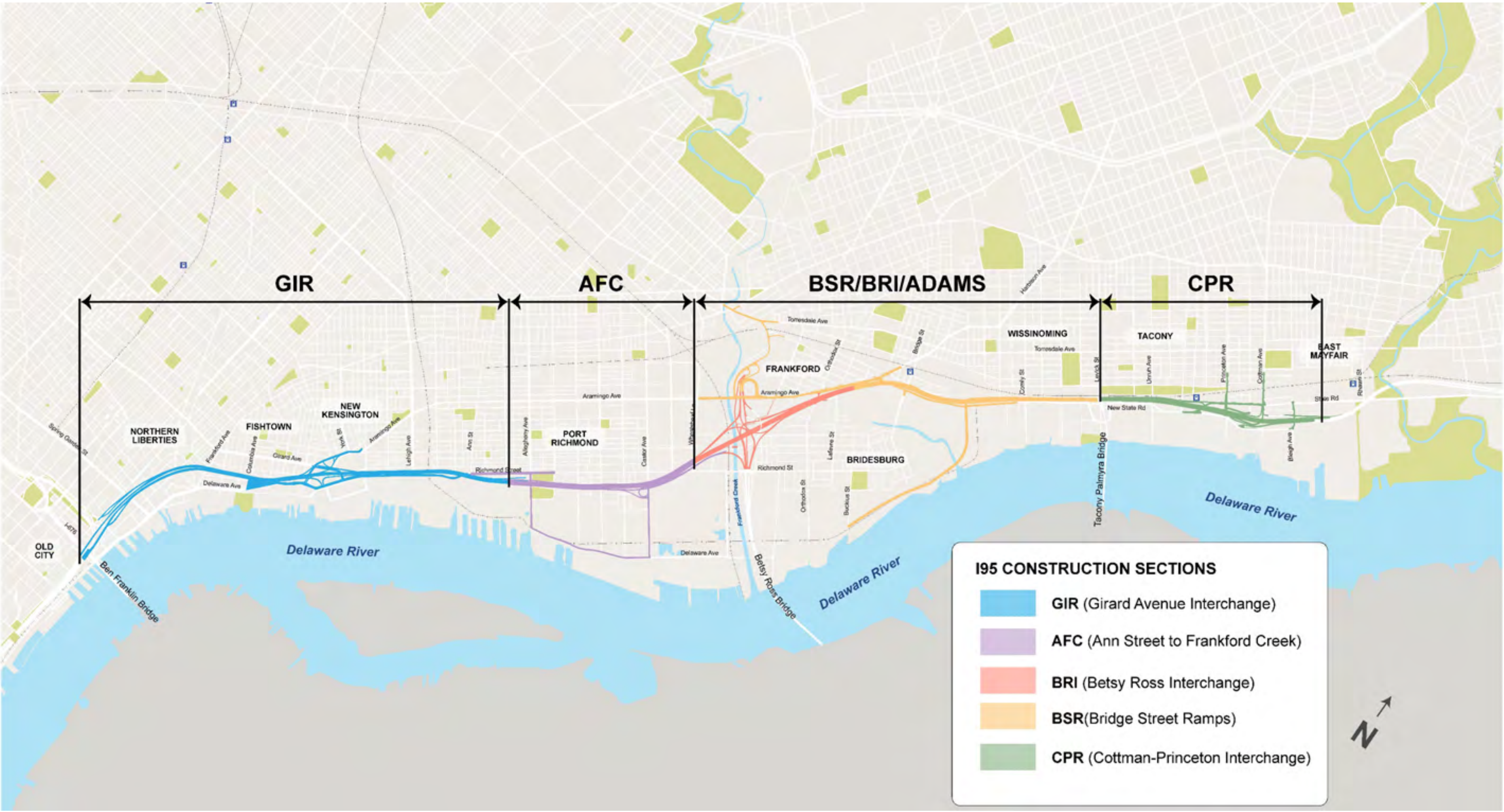
- 51 Miles
  - 325 Lane Miles
  - 210 Bridges
  - 55,000 to 190,000 Annual Average Daily Traffic
- 4 Sectors - in Bucks, Philadelphia and Delaware Counties (from north to south)
  - Sector D - NJ State Line to PA 73 (Cottman Avenue)
  - Sector A - PA 73 (Cottman Avenue) to I-676 (Vine Street Expressway)
  - Sector B - I-676 to Philadelphia International Airport
  - Sector C - Philadelphia International Airport to Delaware State Line
- Priority Based on Physical Conditions and Crash History
- Estimated Total Cost to Rebuild: $8-10 Billion

Major Stakeholders

- FHWA
- PennDOT
- PA Turnpike Comm
- Phila Planning Comm
- Phila Parks n Rec
- PWD
- DRWC
- DVRPC
- DRPA
- NJDOT
- PhilaPort
- PMTA
- Conrail/CSX/NS
- Bridesburg Comm Group
- FNA
- USACOE
- PADEP
- Phila Streets
- Phila Police
- Phila Fire
- CDAG
- RNP
- BCBBC
- DRJTBC
- DelDOT
- PEC
- ECG
- SEPTA
- EKCDC
- FACT



Interstate 95 Sector A



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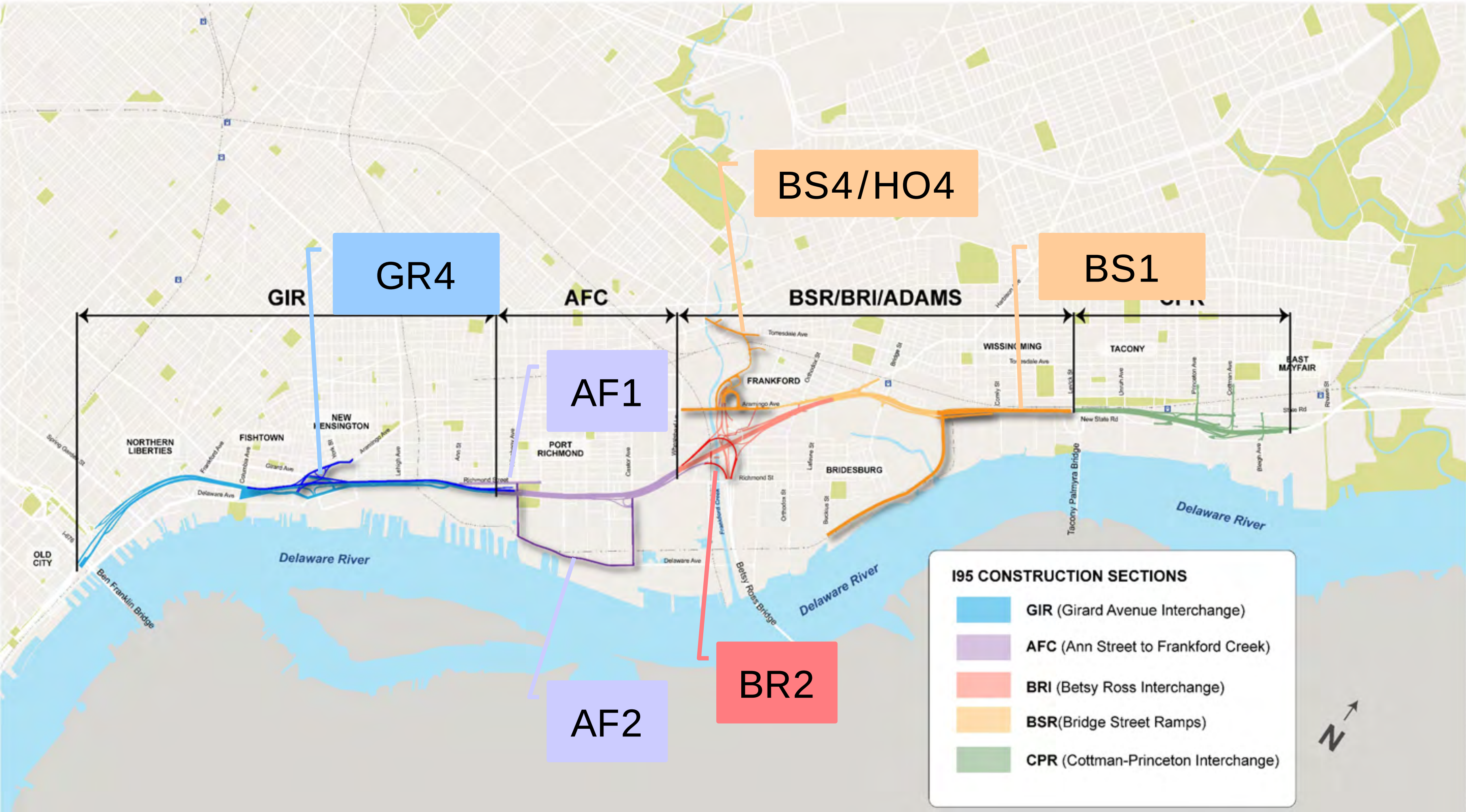
Interstate 95 Sector A – Design and Construction

- Limits: Cottman/Princeton Interchange to I-676 = 7.6 miles
- 5 Design Sections started in 1999
  - CPR
  - BSR/BRI
  - AFC
  - GIR
- Scheduled Construction from 2008 to 2031
- $2.7 +/- Billion Total Estimated Cost
- $1.23B delivered from 2008 to 2018
- 3 Lanes of Traffic Maintained in Each Direction with some overnight lane closures
- 3 Major Bridge Crossings: Ben Franklin, Betsy Ross, Tacony-Palmyra
- $150M+ Congestion Mitigation Program investments

I-95 Construction – Projects 2018-2020



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Sector B Overview

- Limits: I-676 Interchange to Broad Street
- Construction Expected to begin in 2030
- Major Bridge Crossings: Ben Franklin, Walt Whitman
- Current Active Planning Projects
  - CSP - Central to South Philadelphia Corridor Study
  - CAP - Central Access Philadelphia

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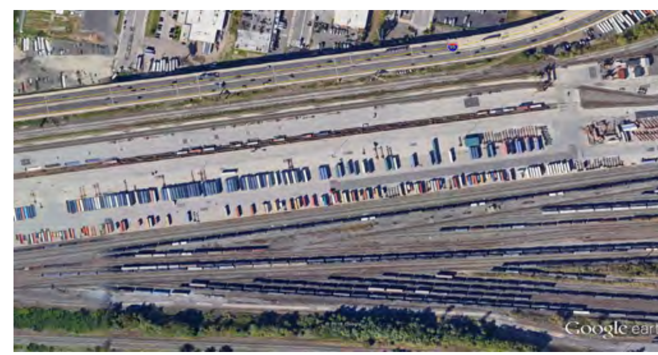
Interstate 95 Section CSP

- Meet City, region, and eastern seaboard multimodal needs
- I-76 and Walt Whitman bridge Interchange locations to be examined
- Waterfront development, freight rail and Port coordination
- Improve access to important expanding economic nodes
  - Port
  - Stadium District
  - Navy Yard



Interstate 95 Section CAP

- Final Design starting
- Constructing cap over I-95 and Columbus Blvd near Penn's Landing,
- Extension of South Street Bridge
- Waterfront Delaware Avenue trail
- Construction anticipated to begin in 2021

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Sector C Overview

- Delaware state line to Girard Point bridge
- I-95 mainline construction scheduled after Sectors A and B
- Major Crossing: Commodore Barry Bridge
- Current Projects
  - I-95/322
  - I-95/476 Flex Lanes

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Sector D Overview

- PA 73 to NJ state line
- Major Bridge Crossings: Turnpike, Scudders Falls
- Current Project
  - I-95/Turnpike Interchange

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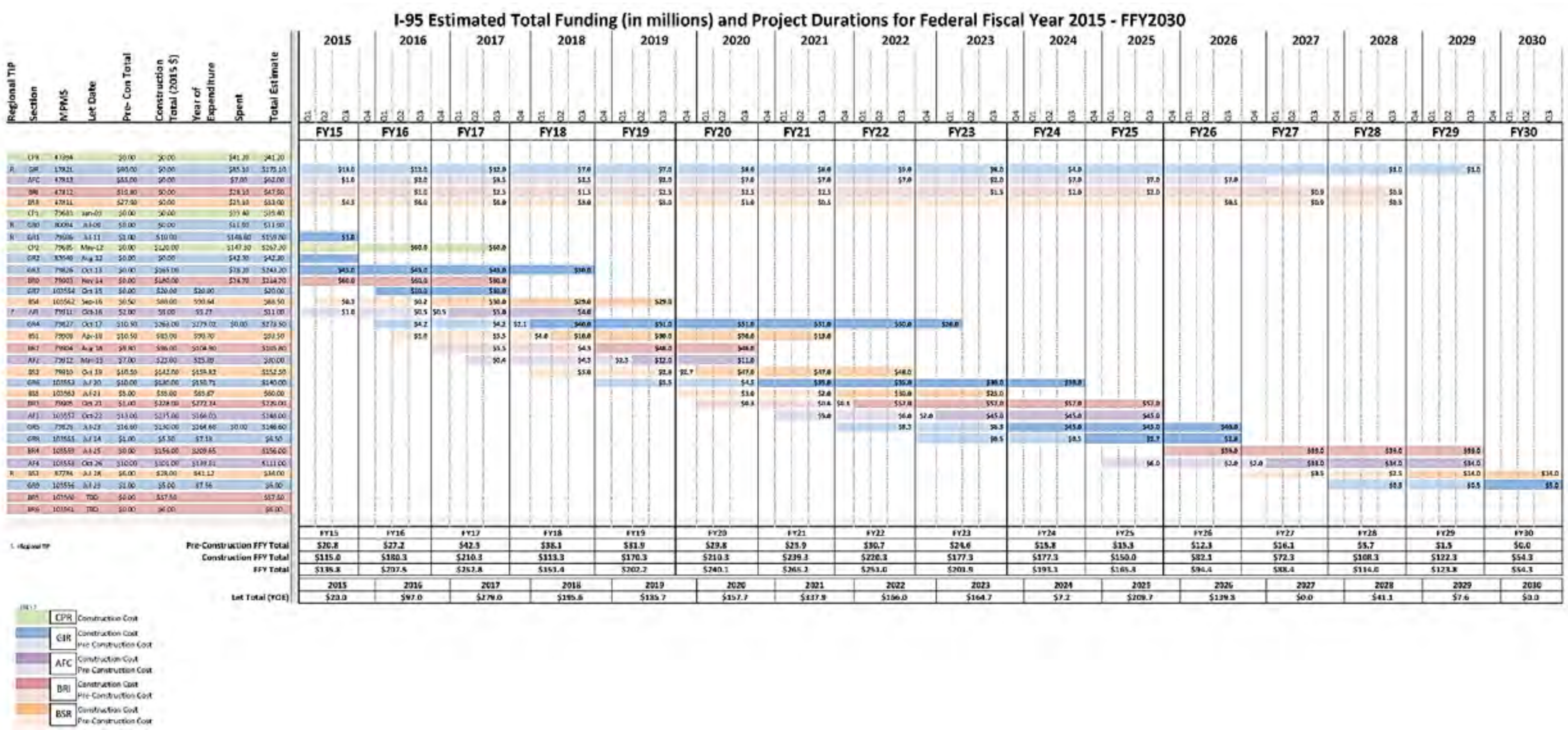
Program Schedule and Funding

- Funded by Regional and Interstate Programs
- Approximate $200M Yearly Cash Flow (Design and Construction)



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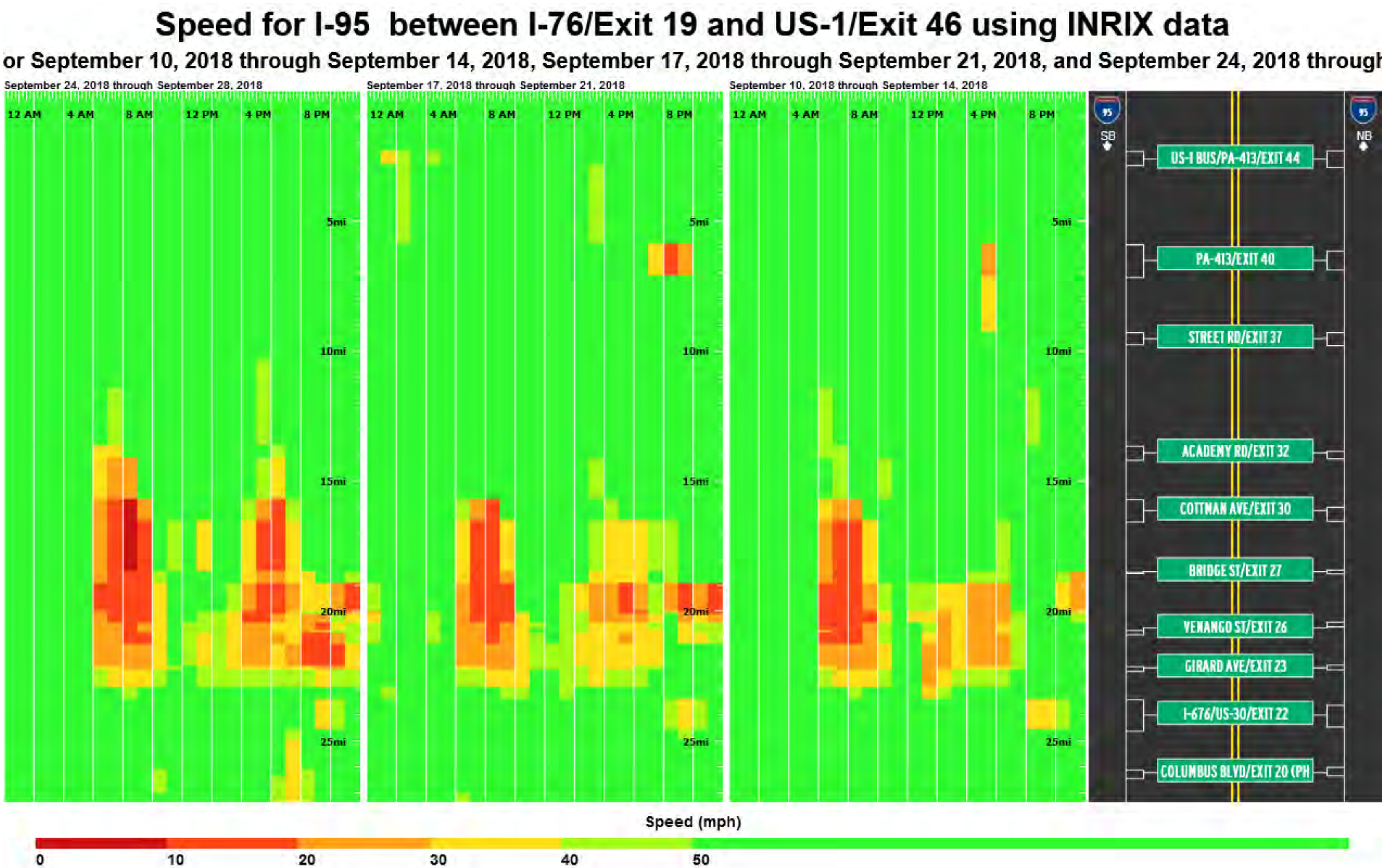
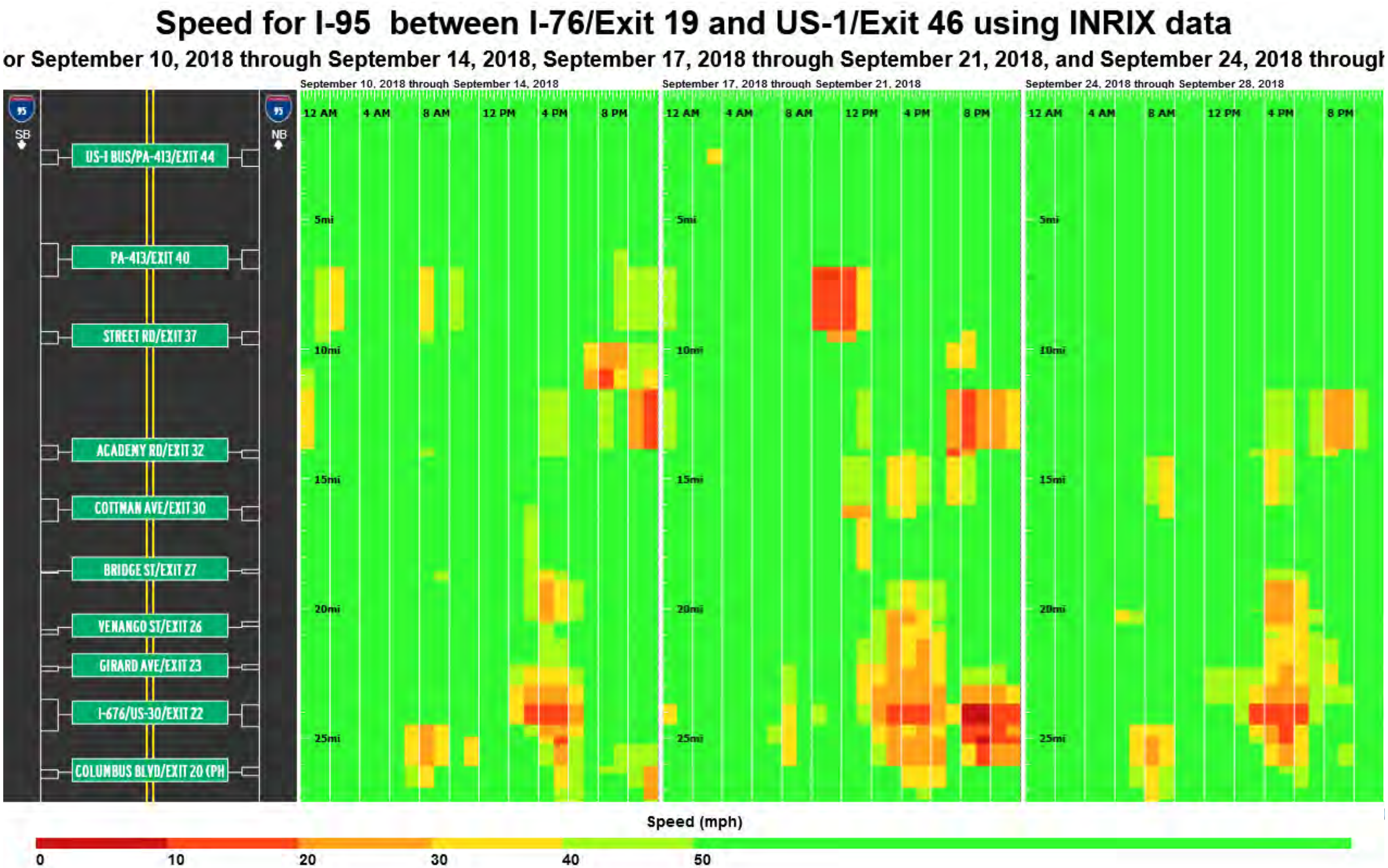
Turnpike Opening Traffic – SB



Turnpike Opening Traffic – NB



Congestion Management

DVRPC

- Leads Congestion and Incident Management Processes
- Provides **R**egional **I**ntegrated **M**ultimodal **I**nformation **S**haring (**RIMIS**)

SEPTA

- Additional Double Deck Rolling Stock and Station Parking Capacity
- Cornwells Heights Real Time Available Parking Information and Train Arrival DMS postings

City of Philadelphia

- Ongoing Construction Phasing and Interchange Detour Routes
- Improved Bike and Pedestrian Trail Connections
- Roosevelt Boulevard

TMA –Transportation Management Associations

- Business and Corporate outreach

Corridor Intelligent Transportation Systems (ITS) Expansion

- Integrated Corridor and Active Traffic Mgmt
- Variable Speed Limits

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Corridor Freight Centers

FIGURE 5: DELAWARE VALLEY FREIGHT CENTERS

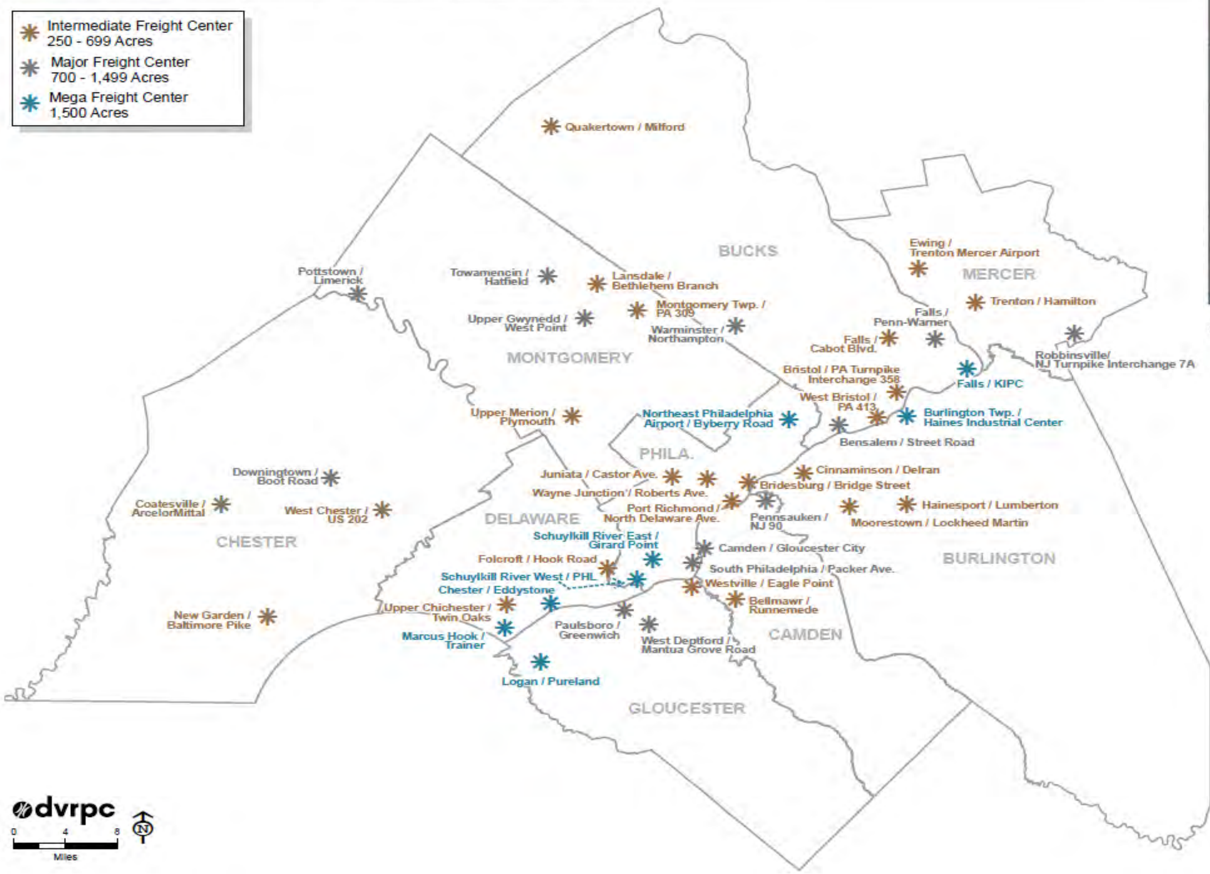
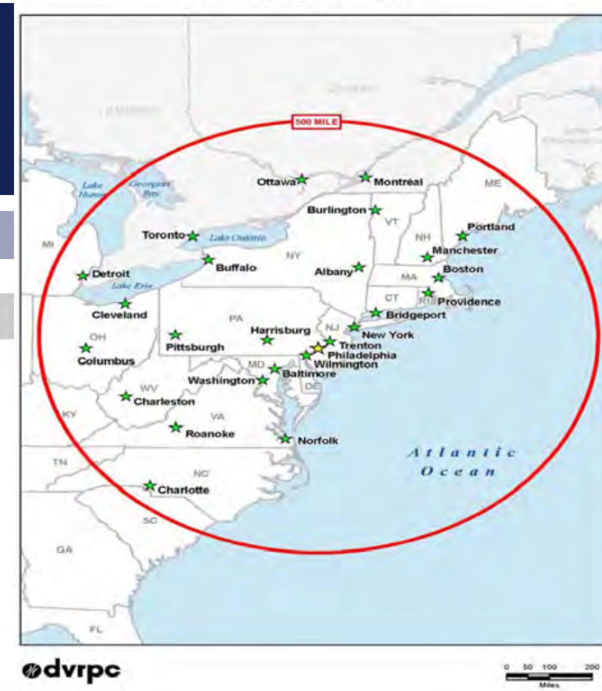


Figure 3: A 500 Mile Radius around Philadelphia, Pennsylvania



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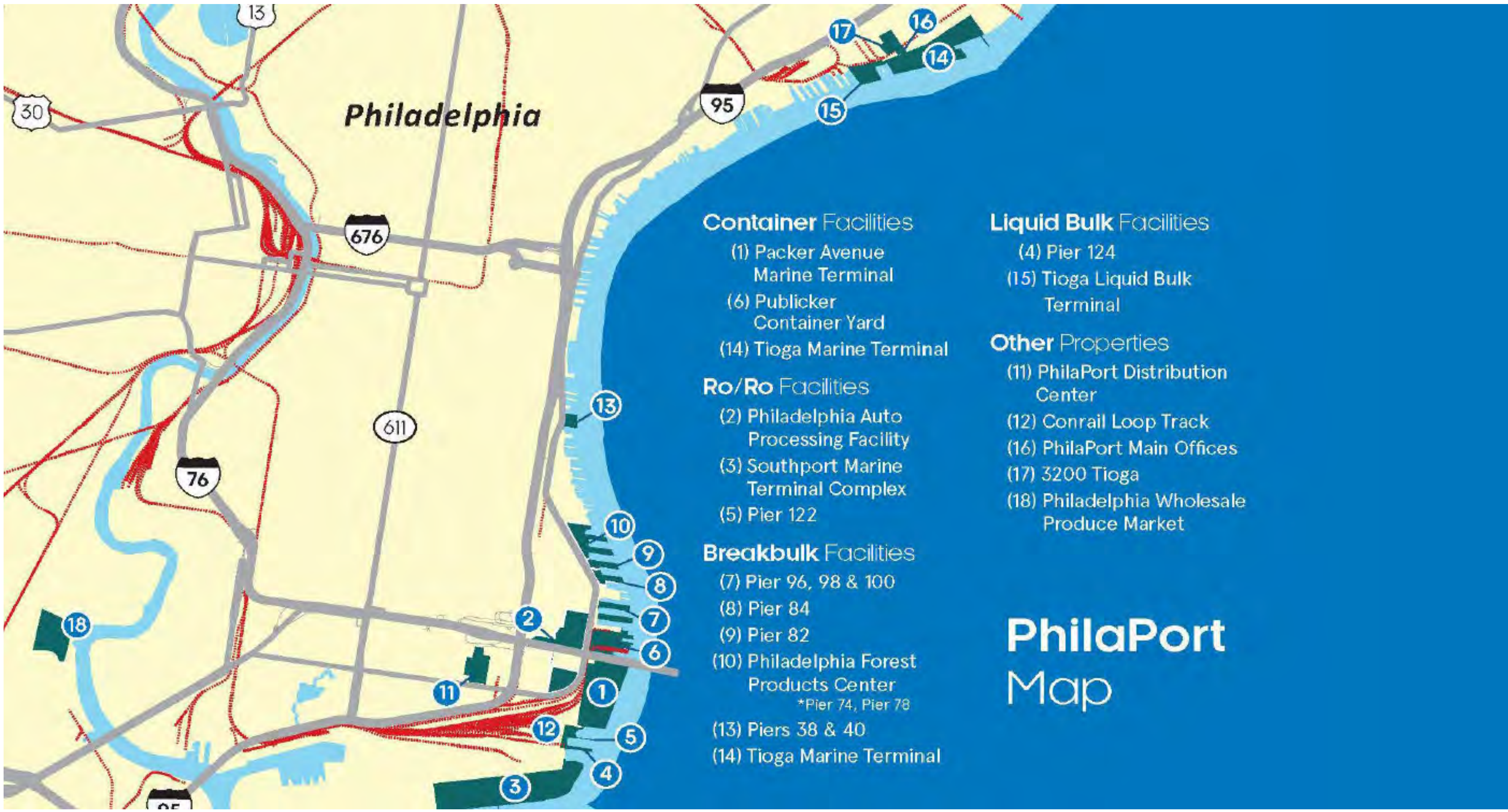
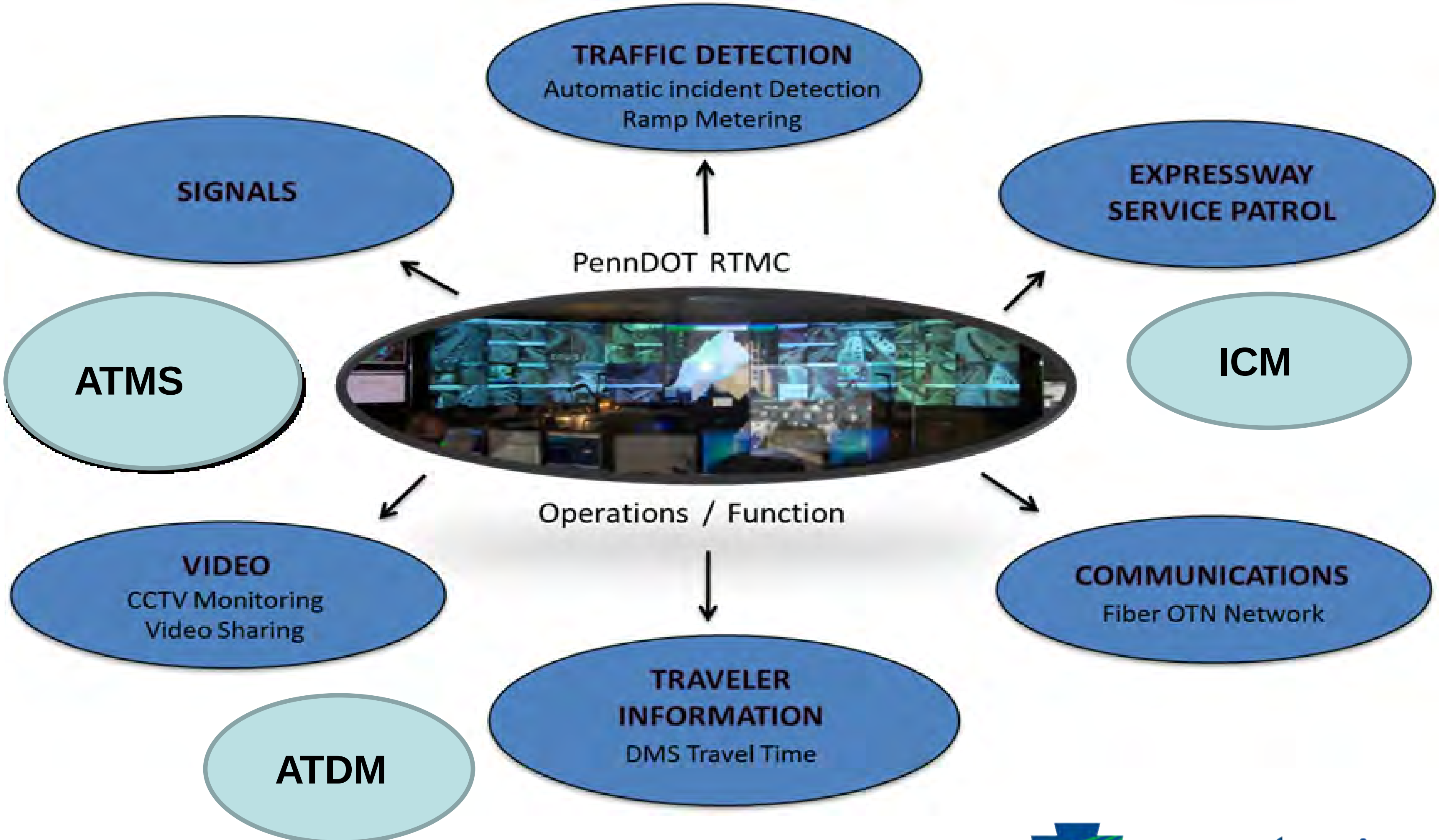
Freight and Port Coordination



2018 RTMC Operations Overview



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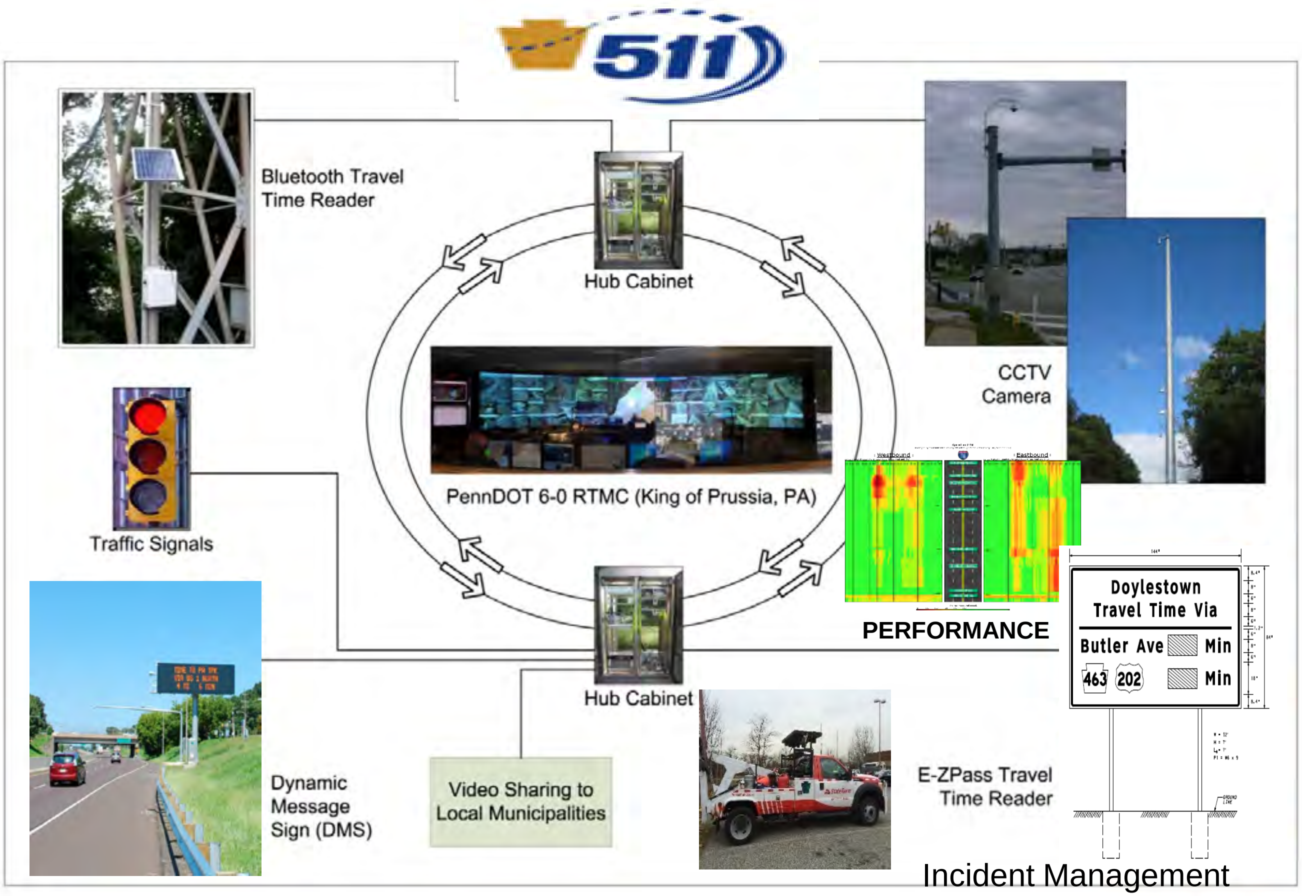
RTMC Overview



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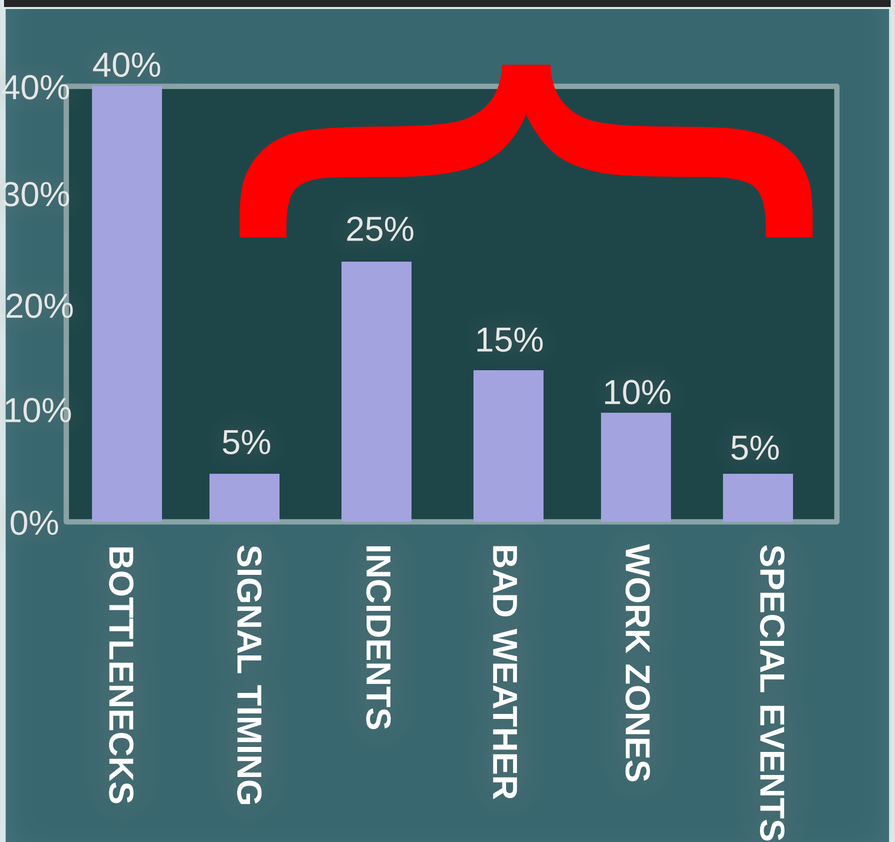
Benefits of Operations

National Causes of Delay



Benefits of Operations Initiatives

- **Region-wide impact**
- **Prompt implementation**
- **High benefit and low cost**
- **Positive public response**

Traffic Management Next Steps

- PennDOT connection and distribution of incident management data to truck fleet managers
- DVRPC I-95 Truck Model in development
- DVRPC sample INRIX Truck O-D data

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PHL PHILADELPHIA INTERNATIONAL AIRPORT

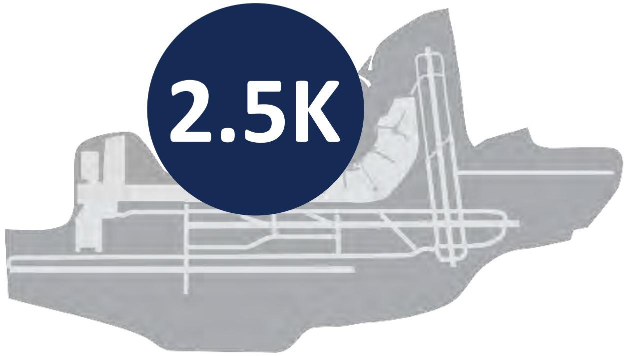
Philadelphia International Airport Air Cargo Development Initiative

"Proudly Connecting Philadelphia with the World"

City of Philadelphia
Department of Commerce – Division of Aviation

October 2018

PHL Statistics



2.5K

2,583 Acres

7

7 Terminals

3M

3,254,354
Square Footage

21K

21,000 Badged Employees

4

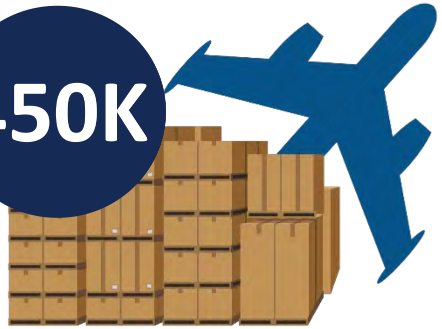
Runways

126

Gates

19K

18,940 Public Parking Spots

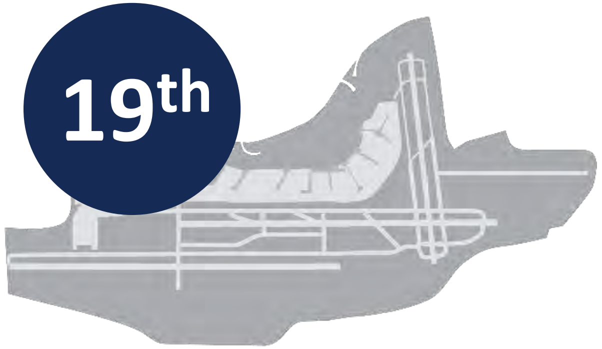


450K

450,000 Square Feet of
Cargo Space

PHL PHILADELPHIA INTERNATIONAL AIRPORT

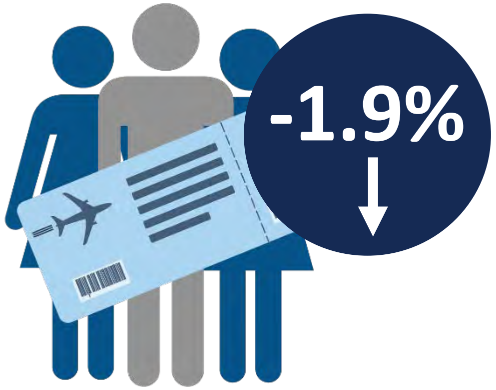
PHL Activity



*19th Busiest Airport (2016)
(Passengers)

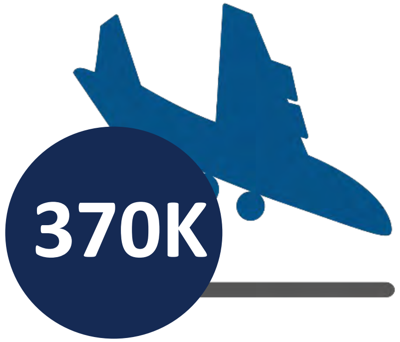
29.6 Million Passengers
(Annual)

81,100 Passengers
(Daily)



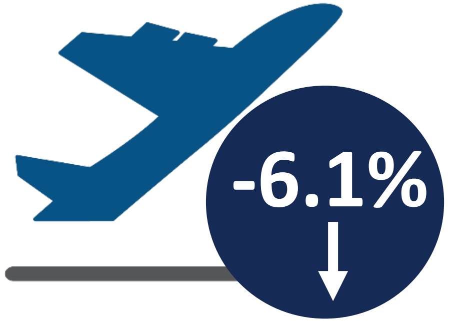
1.9% Decrease in
Passengers (2016-2017)

*16th Busiest Airport (2016)
(Takeoff & Landings)

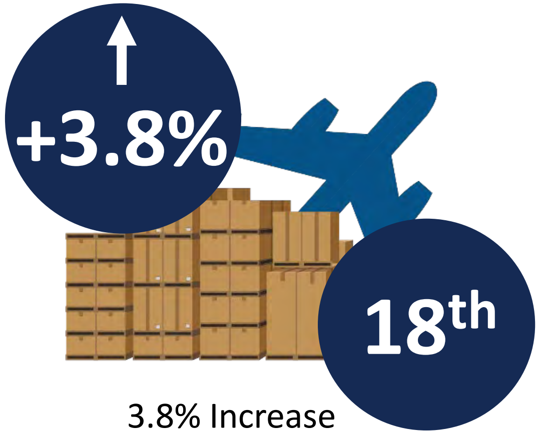


369,928 Operations
(Takeoff & Landings)

1,013 Daily Flights



6.1% Decrease in
Operations (2016-2017)



3.8% Increase
463,000 tons of Cargo
18th in US (2016)

PHL Regional Economic Impact

PHL AGGREGATE ANNUAL ECONOMIC IMPACT BY COUNTY AND STATE

County	Total Output ($M)	Total Employment (Jobs)	Total Earnings ($M)
Bucks County, PA	$593	4,480	$175
Chester County, PA	$558	3,940	$160
Delaware County, PA	$3,656	23,750	$1,308
Montgomery County, PA	$1,097	7,780	$316
Philadelphia County, PA	$7,721	42,940	$2,328
Burlington County, NJ	$459	3,340	$133
Camden County, NJ	$452	3,390	$133
Gloucester County, NJ	$222	1,690	$66
Salem County, NJ	$35	260	$10
New Castle County, DE	$578	4,090	$165
Cecil County, MD	$77	610	$23
11 County Total	**$15,449**	**96,260**	**$4,819**
Pennsylvania	**$13,625**	**82,890**	**$4,287**
New Jersey	$1,168	8,680	$342
Delaware	$578	4,090	$165
Maryland	$77	610	$23

Source: Econsult Solutions 2017 PHL Regional Economic Impact Study – Table ES.3

PHL Regional Economic Impact

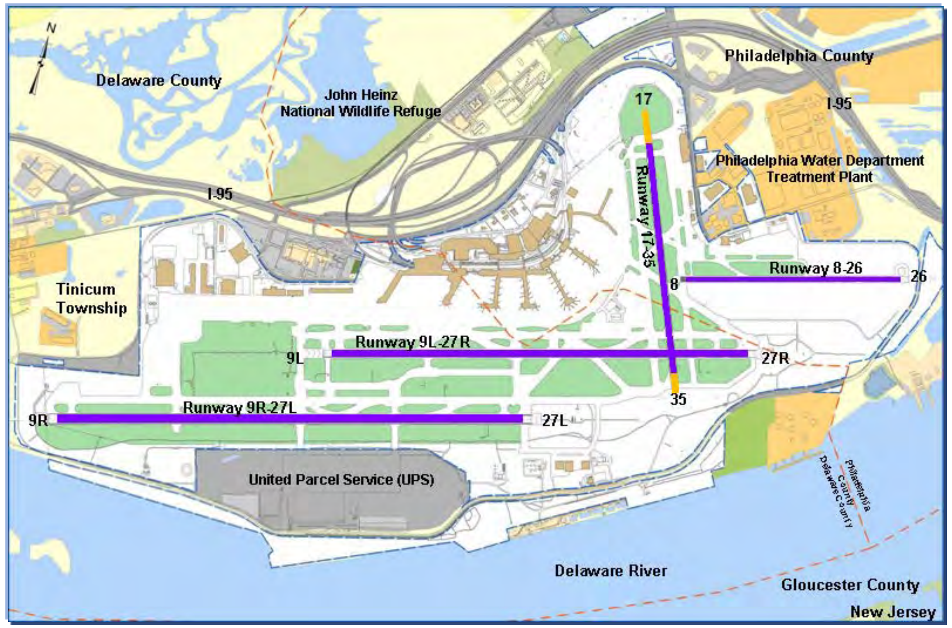
PHL BADGED EMPLOYEES BY COUNTY OF RESIDENCE

County	Badged Employees	% of Total
Bucks County, PA	602	3.1%
Chester County, PA	407	2.1%
Delaware County, PA	3,420	17.4%
Montgomery County, PA	692	3.5%
Philadelphia County, PA	8,575	43.6%
Burlington County, NJ	473	2.4%
Camden County, NJ	830	4.2%
Gloucester County, NJ	534	2.7%
Salem County, NJ	72	0.4%
New Castle County, DE	852	4.3%
Cecil County, MD	45	0.2%
Other	3,179	16.2%
Total	**19,681**	100%

Source: Econsult Solutions 2017 PHL Regional Economic Impact Study – Table 4.1

Efficiency & Access

- Easy Access
  - 7 miles from downtown Philadelphia
  - Close to I-95 & I-76
  - Attractive Highway Network Critical to Cargo Carriers
  - Proximity to Delaware River Port Complex



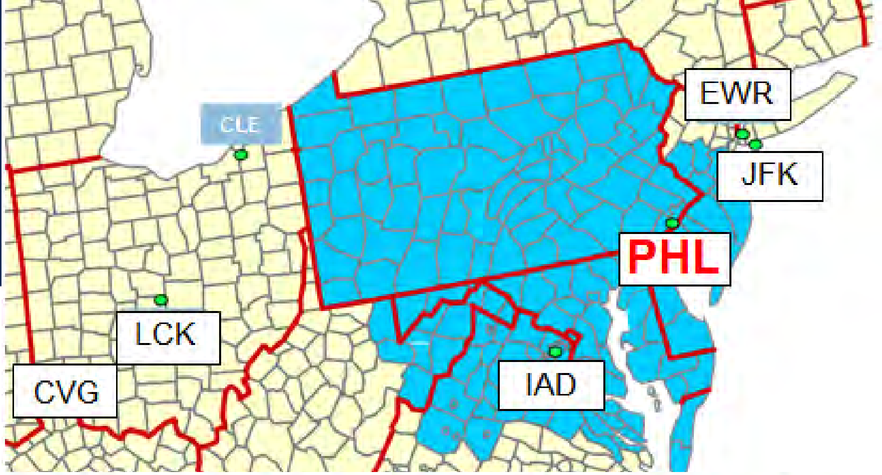
PHL Development Relates to Regional and State Economic Development

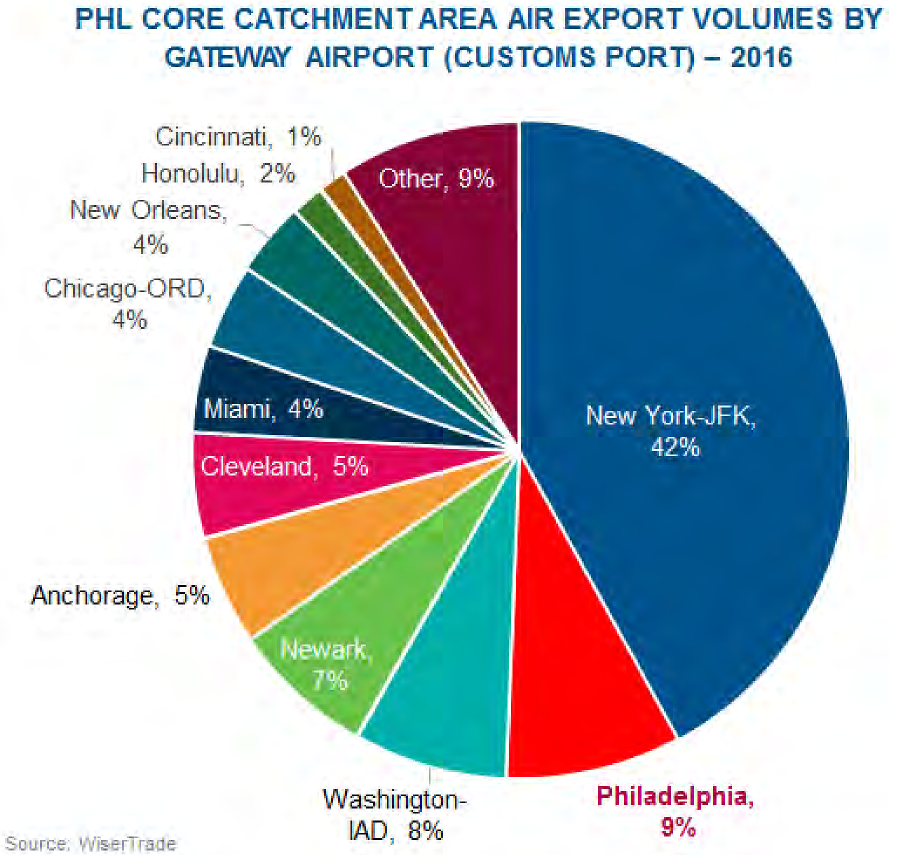
- Current Capital Development Initiatives
  - Airfield Program (Runway 9R-27L Extension)
    - Competitive advantage in growing long-haul international air service
  - Terminal Modernization Program
    - Strengthens our hub and international gateway air service structure
- New Cargo Development Opportunity
  - Recent commercial property acquisition
    - 136 acres adjacent to Cargo City now available for development
  - Competitive advantage to grow air cargo market
  - Economic benefits to the Region and Commonwealth

PHL PHILADELPHIA INTERNATIONAL AIRPORT

PHL Air Cargo Profile

- PHL's core catchment area encompasses all or parts of 6 states
- In 2016, the area's air cargo exports/imports were valued at $53 billion
- PHL captured only 9% of the catchment area market share in 2016
  - Nearly 60% of the share passed us by, and was captured by neighboring airports JFK, EWR and IAD
  - Cargo facility limitations place PHL at a competitive disadvantage
  - Intermodal transport through distant air gateways creates supply chain inefficiencies
- Air Cargo Development Initiative at PHL
  - Approximately 1.5 million SF (including an additional 1M SF in new development potential) can be made available for air cargo operations
  - Comparatively, JFK air cargo facility: 4.0 million SF





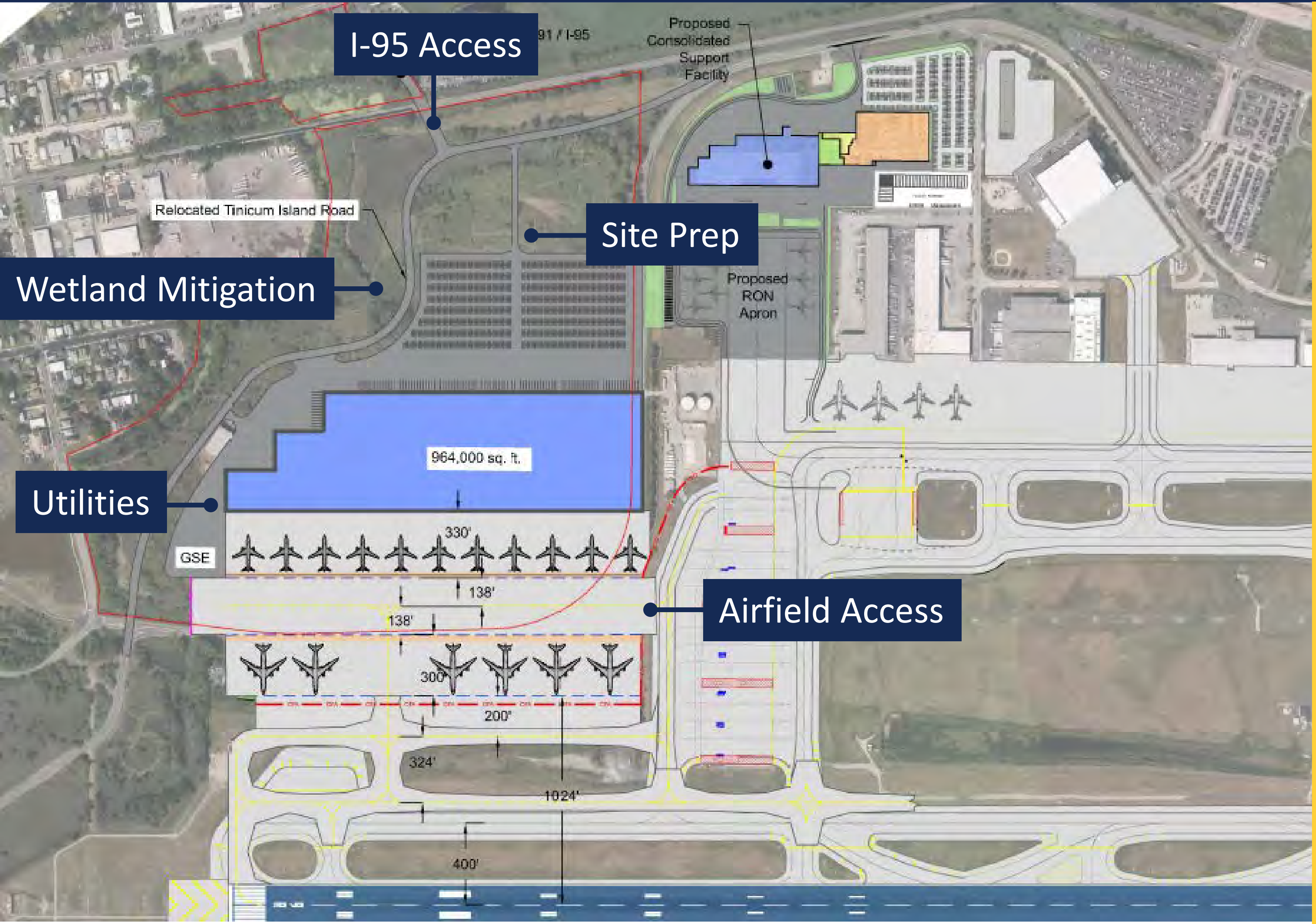
PHL PHILADELPHIA INTERNATIONAL AIRPORT

PHL Existing Cargo Facilities

PHL PHILADELPHIA INTERNATIONAL AIRPORT

West Cargo Expansion

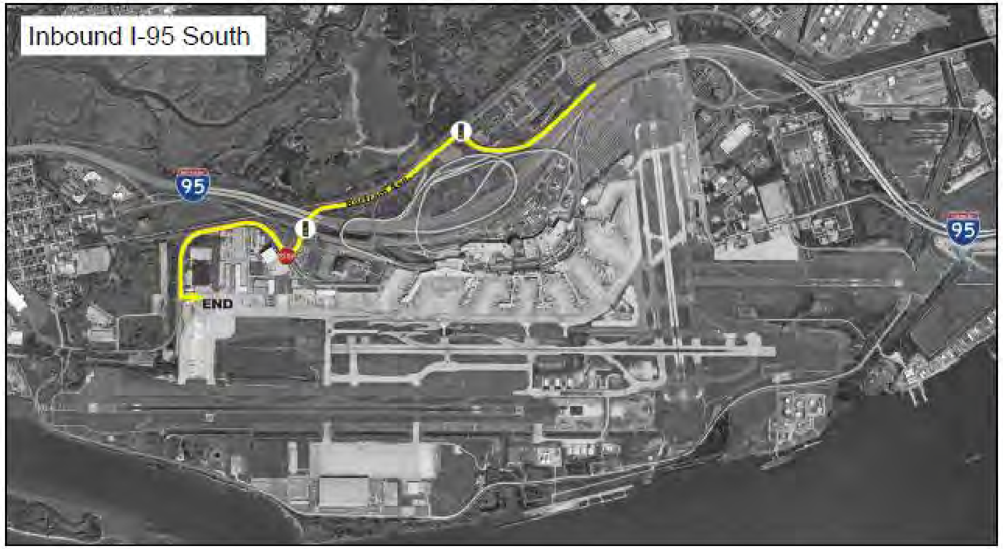
Cargo Development Opportunity – A Potential Layout Concept

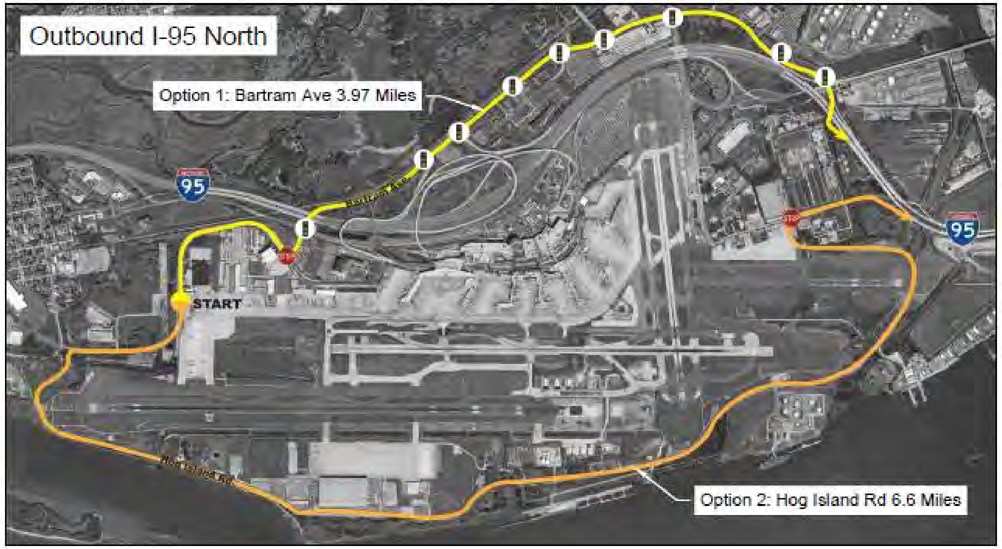


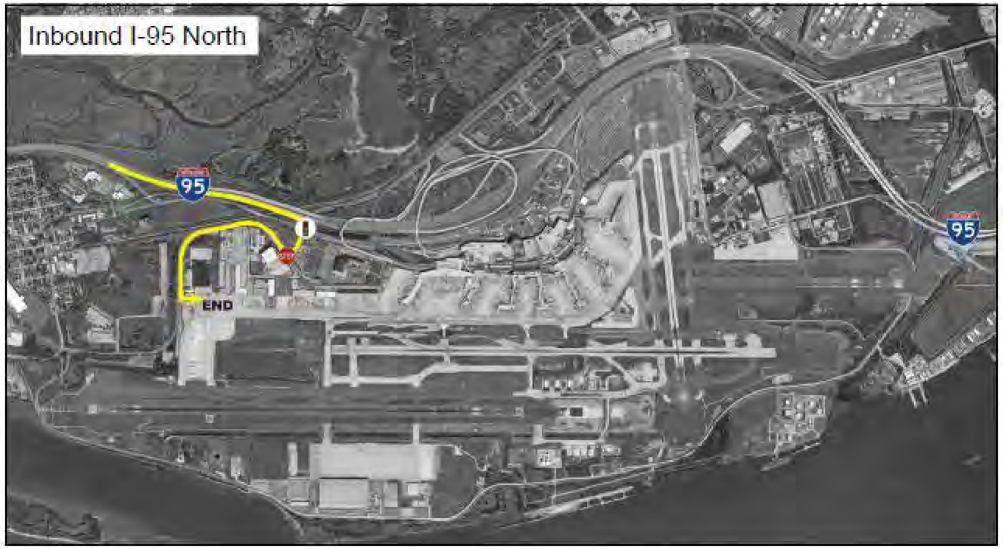
Site Preparation/ Development Needs:

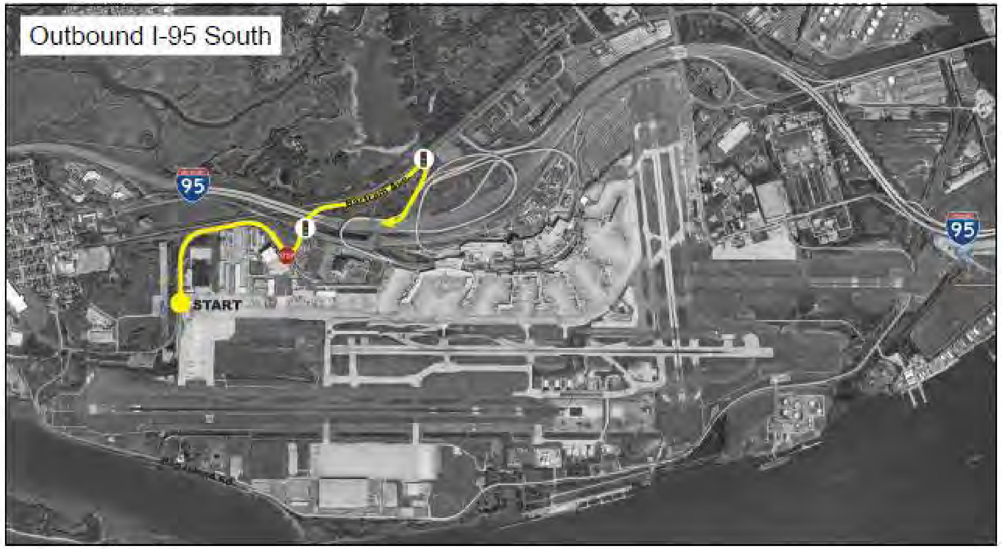
1. Wetlands/Environmental
2. Utilities Development
3. Tinicum Island Road Relocation
4. Site Preparation/Rough Site Grading
5. Noise Barrier
6. Airfield Access/Apron/Hardstands
7. Access to I-95

Cargo Development Area Access to I-95 via Current Road Network









- Access to and from I-95 South is adequate
- Access from I-95 North is adequate
- There are 2 options to access I-95 North that are not ideal:
  - Bartram Route, 4 miles, 9 traffic lights
  - Hog Island Route, 6.6 miles, 1 stop sign

PHL PHILADELPHIA INTERNATIONAL AIRPORT

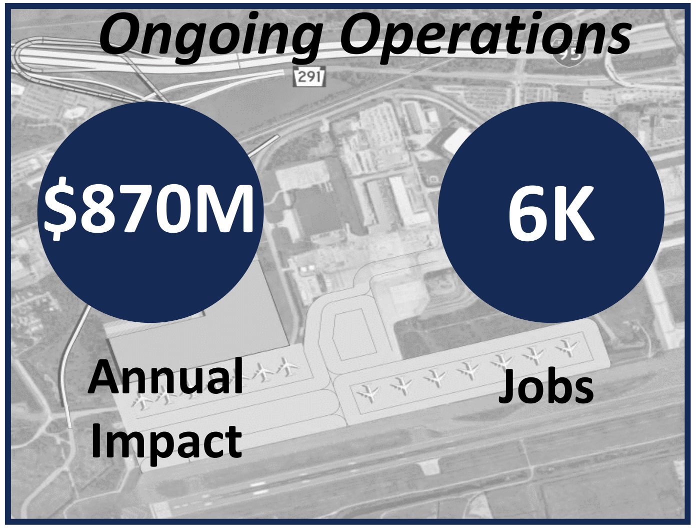
"Seed" for Growth:
Economic Impact Specific to Air Cargo Development

Economic Impact of Construction of Facilities

- $1.4 Billion in development costs
- $2.5 Billion in total regional economic impact
  - Direct, indirect and induced impact
- 15,000 job-years in employment
  - $1 Billion in earnings (including direct and induced impact)

UNDER CONSTRUCTION

$1.4B	$2.5B	15K
Cost	**Impact**	**Job-years**



Economic Impact of Ongoing Operations

- 1M + square feet facility operation
- $870 Million in annual economic impact
  - Direct, indirect and induced impact
- 6K jobs with $350 Million in earnings (including direct and induced impact)

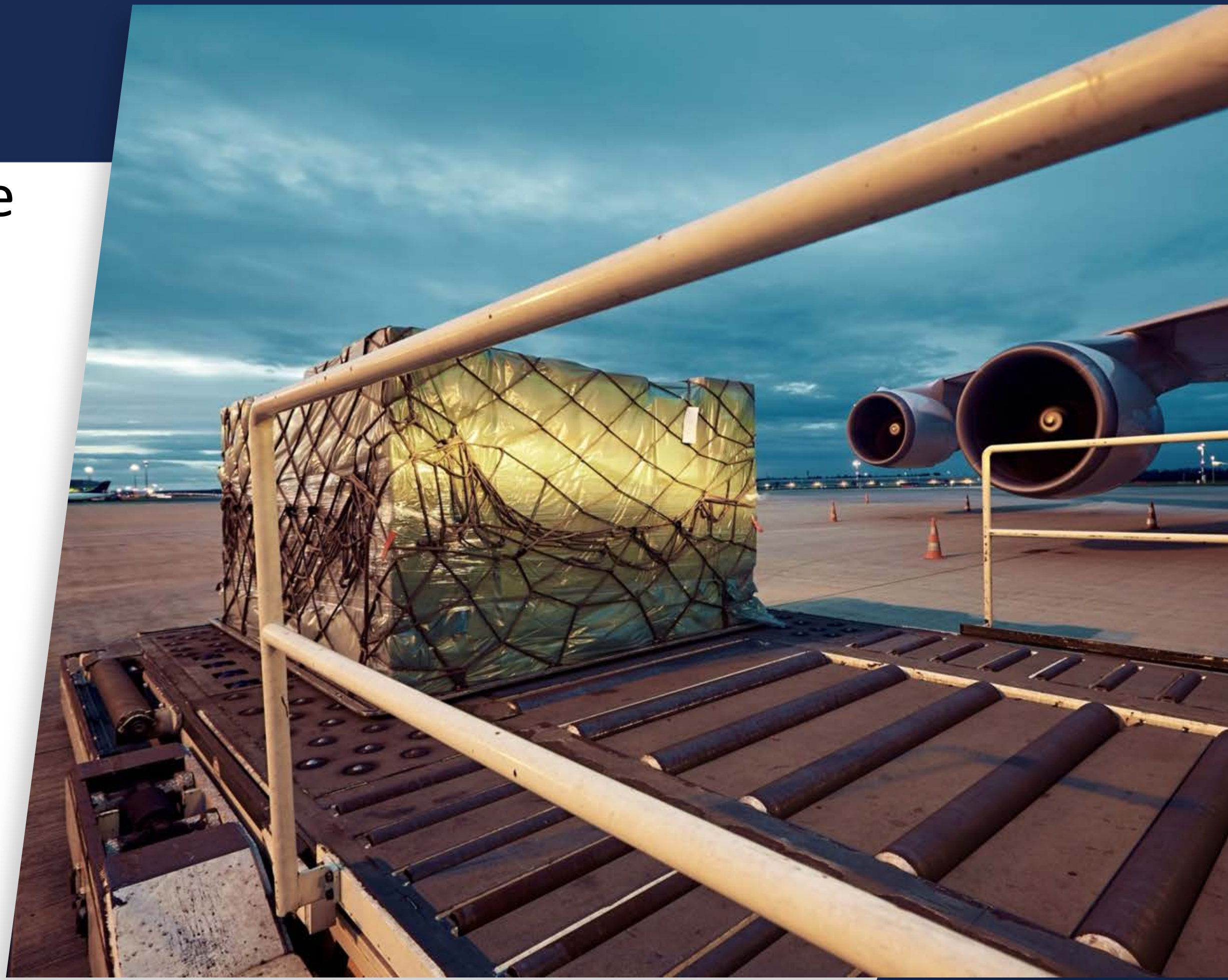
Prospect for Regional Growth from the "Seed": The Longer Term Broader Impact on Regional Competitiveness

Regional Efficiency Impacts:

- Improved infrastructure allows transnational companies to remain competitive, and helps attract foreign investment
- Improved efficiency for regional businesses, promoting growth/expansion
- Increased efficiency and competitiveness could result in 1 - 2% in gross metropolitan product (GMP) which would result in an additional $5B - $10B in annual economic output throughout the region

This development is an initial investment in building the type of infrastructure that will be necessary for our metropolitan region to compete effectively with the rest of the world in the 21st century.

Summary



- The PHL air cargo catchment area is one of the strongest in the US for high value cargo
- PHL currently captures a very small portion of the market due to facility limitations
- A new site is available to build world class cargo infrastructure and attract interested air cargo carriers
- This opportunity will improve Pennsylvania's competitive position in the market and yield attractive economic benefits
- This is clearly a joint City, Region and Commonwealth economic development opportunity
- We need development assistance in the form of incentives, funding and agency cooperation to make the initiative a success

The MANFREDI Companies

Cold Storage, Repackaging and Distribution for imported and domestic fruits and vegetables across North America

MANFREDI COLD STORAGE

ITC INLAND TRANSPORTATION CORPORATION

IR INTERNATIONAL REPACK

NATIONAL REFRIGERATED FREIGHT

MANFREDI LOGISTICS SERVICE

HISTORY

• Family business in same location since 1932.

• Evolved into a 27,500 pallet capacity food grade warehouse.

• Currently storing products from over 20 countries around the world.

• Located in Kennett Square, PA. New property site located NJ.

ADDITION 2018

How did Kennett Square become a hub for imported fruits and vegetables?

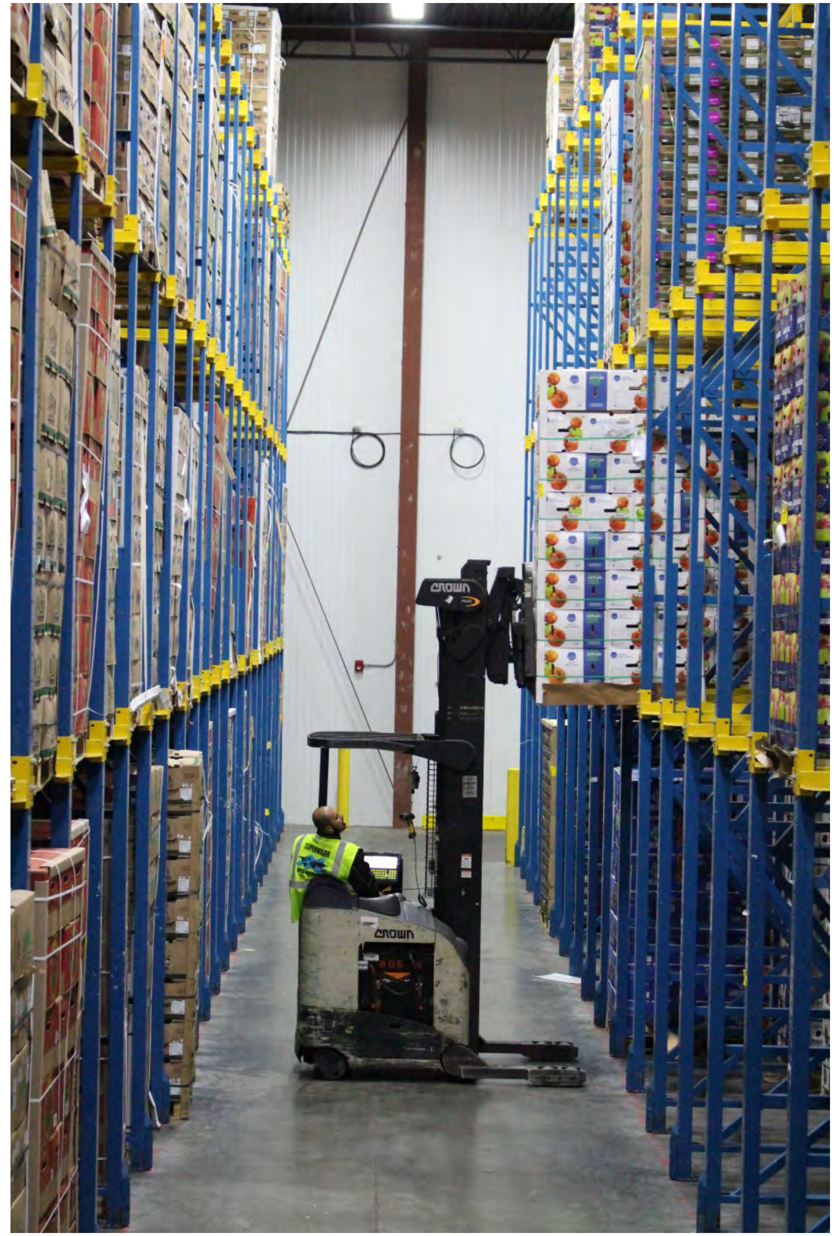
MANFREDI
COLD STORAGE

- Temperature controlled warehousing operation ranging from 0’ to 50’ degrees F.

- Complete Automatic Emergency Back Up Power for the entire facility.

- Completely wireless RF network.

- Entire facility is wired with closed circuit video.



Warehouse Information

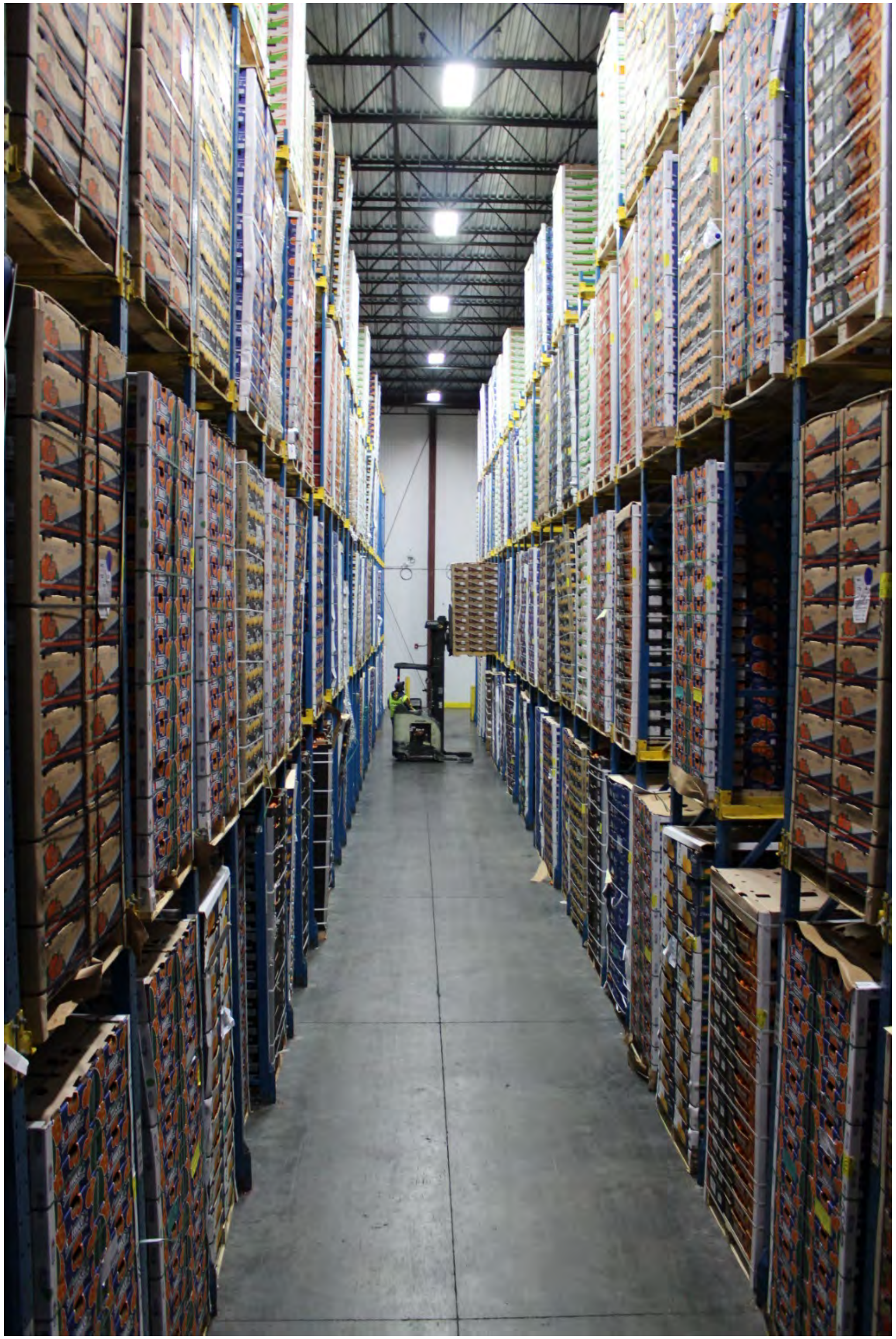
-Low density racking allows for quick turn around time and improved temperature control / airflow.

-Primus GFS inspections annually.

- Certified for storing Organic food items. CCOF

- AIB Superior Rating!!

-Currently case picking over 125 orders, 15,000 cases a day on third shift.



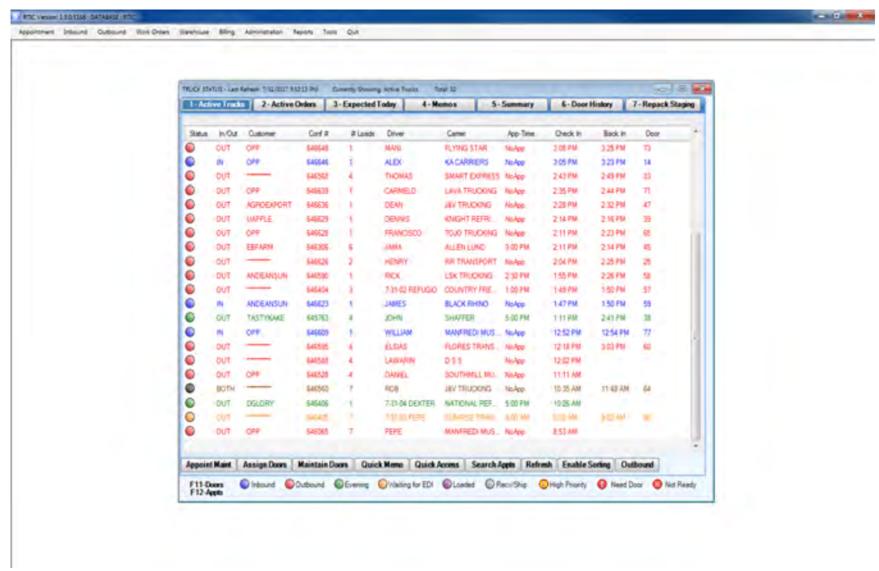
Inventory Control Systems

REAL TIME INVENTORY

- Complete access to inventories, shipment histories and pending loads via internet using terminal services.

-Custom reporting available.

-Advanced EDI including e-mail and most internet protocols.



Camera Access

- Entire facility is wired with closed circuit video.

- Camera access through the internet for your account from anywhere around the world.

- All inbound and outbound loading is monitored and recorded for 90 days.

- Video recordings are time stamped to match up against all truck loading information.

INTERNATIONAL REPACK

- Offering custom bagging, labeling, and repacking.

- All work is updated real time into inventory control system.

- Reconditioning services available to customer specified criteria.

- In house QC services available

Ripening Rooms

• 8 State of the Art ripening rooms from Dade Services.

• Remote computer access to all processes.

• All ripening rooms tied to a central refrigeration plant and backed up with automatic emergency generators.

Ozone Generators

- All rooms protected with Ozone, constantly sanitizing the contents of the entire room.

- Reduces mold and controls ethylene production.

- Computer controlled and monitored to maintain worker safety.


INLAND TRANSPORTATION
Daily service moving cargo to and from the waterfront.
INLAND
TRANSPORTATION
CORPORATION
- Daily presence to all piers on the Delaware River.
- All drivers are TWIC and Sealink Certified.
- Company Owned Chassis.
- Permitted to haul overweight; up to 90,000 lbs.


MANFREDI LOGISTICS
In house, asset based carrier
Daily LTL delivery throughout Mid West, Mid Atlantic, and North East.
MANFREDI
LOGISTICS SERVICE
11910
www.ManfrediLogistics.com
MANFREDI
LOGISTICS SERVICE
-Scheduled outbound runs.
-Trucks are Satellite tracked & temperature monitored.
-Modern asset based fleet with air ride suspension.
- Trucks are “Smart Way Certified.”
- Recently added Split Temperature Trailers to our fleet.

NATIONAL Refrigerated Freight

-MANFREDI in house freight brokerage division..

Moving refrigerated fright all through the US

COMING SOON !

MANFREDI REFRIGERATED DISTRIBUTION CENTER

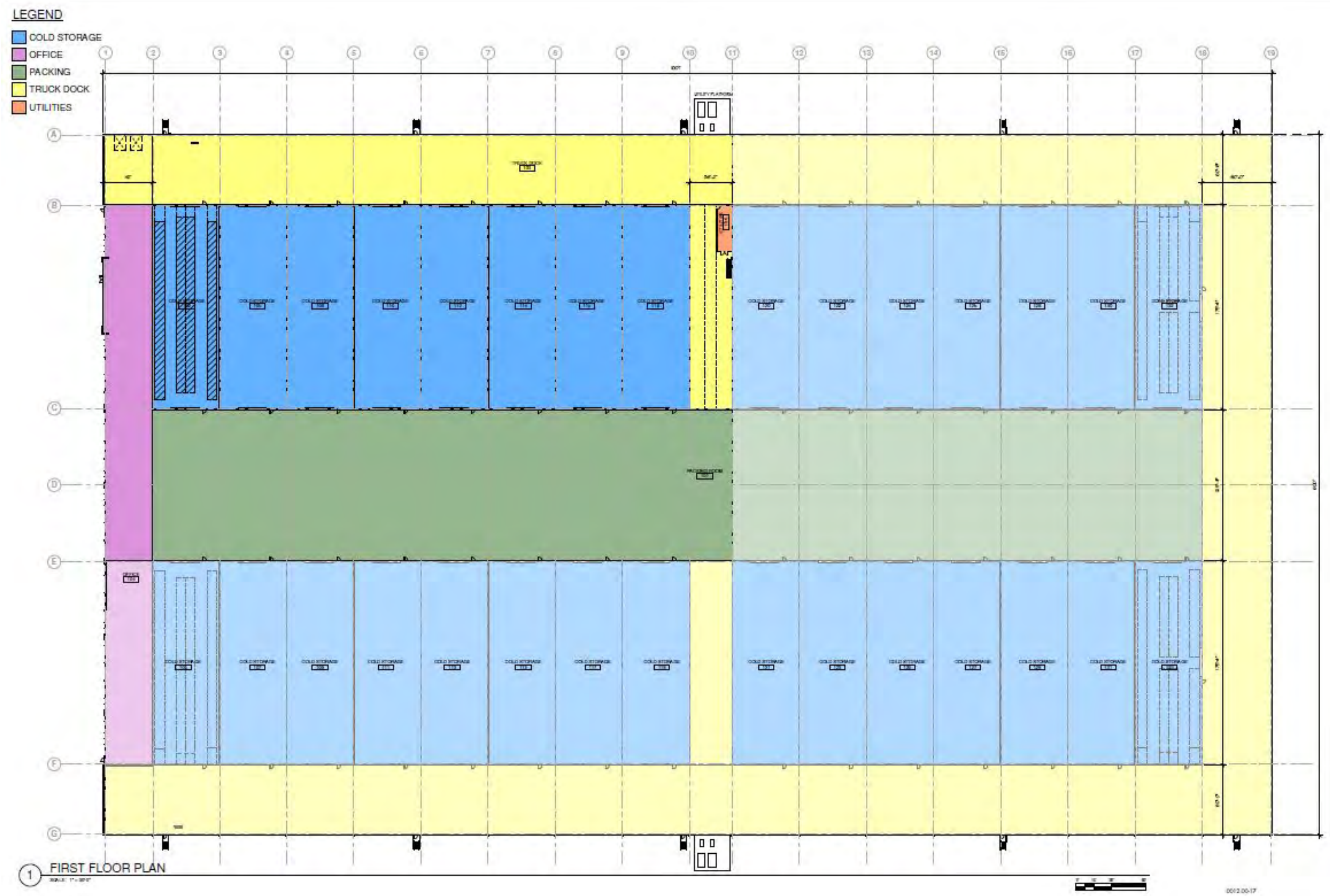
Construction in PEDRICKTOWN, NJ to break ground fall 2018

Site is 3 miles south of Commodore Barry Bridge

- Final build out
  - 600,000 square foot facility
  - 32 Cold Storage Rooms
  - Capacity for 32,000 pallets
  - 100,000 square foot repack area

COMING SOON !

MANFREDI REFRIGERATED DISTRIBUTION CENTER



The MANFREDI Companies

Thank you

MANFREDI COLD STORAGE

INLAND TRANSPORTATION CORPORATION

INTERNATIONAL REPACK

NATIONAL REFRIGERATED FREIGHT

MANFREDI LOGISTICS SERVICE